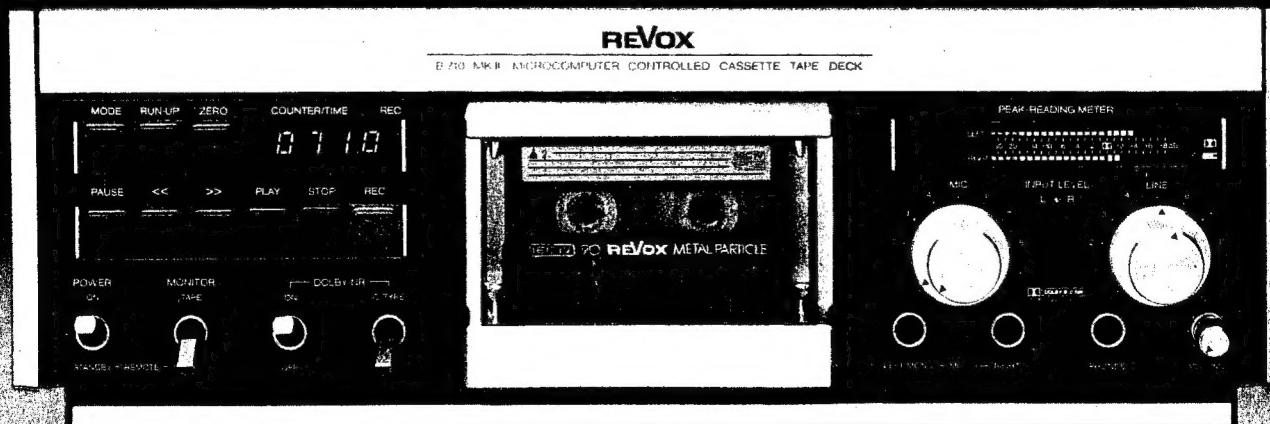


**SERVICEANLEITUNG
SERVICE INSTRUCTIONS
INSTRUCTIONS DE SERVICE**

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Für die Unterhaltungselektronik +
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| INHALTSVERZEICHNIS | CONTENTS | REPERTOIRE | SECTION |
|---|--|--|---------|
| 1. ALLGEMEINES | GENERAL | GENERALITES | 1/1 |
| 1.1 Laufwerk-Bedienungselemente | Tape transport controls | Organes de commande du mécanisme | 1/1 |
| 1.2 Wiedergabe-Bedienungselemente | Controls for playback mode | Organes de commande de la lecture | 1/1 |
| 1.3 Aufnahme-Bedienungselemente | Controls for recording mode | Organes de commande de l'enregistrement | 1/2 |
| 1.4 Anschlussmöglichkeiten | Connectors | Possibilités de raccordement | 1/2 |
| 1.4.1 Gerät frontseite | Front panel | Face avant | 1/2 |
| 1.4.2 Gerät rückseite | Rear panel | Panneau arrière | 1/2 |
| 1.5 Steckerbelegung | Connector pin assignment | Disposition des connecteurs | 1/2 |
| 1.6 Pflege und Wartung des Gerätes | Care and maintenance of the recorder | Entretien de l'appareil | 1/3 |
| 1.7 Werkzeuge, Einstell-Lehren und Messgeräte, welche für den Service eines B710 gebraucht werden | Tools, setting gauges and measuring instruments required for the maintenance of an B710 recorder | Outils, gabarits et appareils de mesure nécessaires au service d'un B710 | 1/3 |
| 1.7.1 Laufwerkeinstellungen | Tape transport adjustments | Réglage du mécanisme | 1/3 |
| 1.7.2 Audioeinstellungen | Audio adjustments | Réglages audio | 1/3 |
| 2. AUSBAU | DISASSEMBLY | DEMONTAGE | 2/1 |
| 2.1 Entfernen des oberen Deckbleches | Removing the top cover | Dépose de la plaque supérieure | 2/1 |
| 2.2 Entfernen des unteren Deckbleches | Removing the bottom cover | Dépose de la plaque fond | 2/1 |
| 2.3 Kassettenlaufwerk-Abdeckung entfernen | Removing the cassette tape transport cover | Dépose des panneaux latéraux | 2/1 |
| 2.4 Entfernen der seitlichen Abdeckungen | Removing the side covers | Dépose du capot du mécanisme | 2/1 |
| 2.5 Frontplatte ausbauen | Removing the front panel | Dépose de la face avant | 2/1 |
| 2.6 Obere Traverse ausbauen | Removing the top crosstie | Dépose de la plaque transversale supérieure | 2/2 |
| 2.7 Komplette Laufwerkeinheit ausbauen | Removing the complete tape transport | Dépose complète du mécanisme | 2/2 |
| 2.8 Tasten- und Anzeigeprint ausbauen | Removing the keyboard and display PCB's | Dépose des circuits du clavier et de l'affichage | 2/2 |
| 2.9 Kippschalter ausbauen | Removing the toggle switches | Démontage des commutateurs à bascule | 2/3 |
| 2.10 PEAK READING METER-Print ausbauen | Removing the PEAK READING METER PCB | Dépose du circuit du PEAK READING METER | 2/3 |
| 2.11 MIC/PHONES PCB 1.710.350/351 ausbauen | Removing the MIC/PHONES PCB 1.710.350/351 | Dépose du circuit MIC/PHONES PCB 1.710.350/351 | 2/3 |
| 2.12 Entfernen des hinteren Deckbleches | Removing the rear cover | Dépose du panneau arrière | 2/3 |
| 2.13 Entfernen der Anschlussfeld-Abdeckung | Removing the connector panel cover | Dépose de la plaque recouvrant les connecteurs | 2/3 |
| 2.14 Lösen der Wickelmotorabdeckung | Unfastening the spooling motor cover | Dépose du couvercle du moteur de bobinage | 2/4 |
| 3. LAUFWERKEINSTELLUNGEN | TAPE TRANSPORT ADJUSTMENTS | REGLAGE DU MECANISME | 3/1 |
| 3.1 Werkzeuge und Hilfsmittel | Tools and aids | Outilage et accessoires | 3/1 |
| 3.2 Vorarbeiten und Kontrollen | Preliminary steps and checks | Travaux préliminaires et contrôles | 3/1 |
| 3.2.1 Andruckrollen kontrollieren | Check the pinch rollers | Contrôle des galets presseurs | 3/1 |
| 3.2.2 Andruckrollen-Arme kontrollieren | Checking the pinch roller arms | Contrôle des bras de galet presseur | 3/1 |
| 3.2.3 Position des Zentrierbolzens kontrollieren | Checking the position of the centering pin | Contrôle de la position du boulon de centrage | 3/2 |
| 3.2.4 Kolbendämpfer prüfen | Checking the dash pot | Vérification de l'amortisseur à pistons | 3/2 |
| 3.2.5 Schwenkträgererzung kontrollieren | Checking the pivoting carrier | Contrôle de la mise à la terre du support des têtes | 3/2 |
| 3.3 Einstellen des Schwenkträgers | Adjusting the pivoting carrier | Support pivotant | 3/3 |
| 3.4 Einstellen der Magnettonköpfe und Andruckrollen | Adjusting the soundheads and the pinch rollers | Ajustage des têtes magnétiques et des galets presseurs | 3/4 |
| 3.4.1 Vorberichtigungen | Preparatory steps | Préliminaires | 3/4 |
| 3.4.2 Einstellen der Magnettonköpfe | Adjusting the soundheads | Ajustage des têtes magnétiques | 3/4 |
| 3.4.3 Einstellen des Löschkopfes | Adjusting the erase head | Ajustage de la tête d'effacement | 3/5 |
| 3.4.4 Einstellen der Andruckrollen | Adjusting the pinch rollers | Réglage des galets presseurs | 3/5 |
| 3.4.5 Andruckmagnet und Kolbendämpfer einstellen | Adjusting the pinch solenoid and the dash pot | Réglage de l'électro-aimant d'appui et de l'amortisseur à piston | 3/6 |
| 3.4.6 Tonmotoren | Capstan motors | Moteurs de cabestan | 3/7 |

| | | | | |
|-------|--|--|---|-----|
| 3.5 | Elektrische Laufwerkeinstellungen | Adjustments to the tape transport electronics | Réglages électriques de mécanisme | 3/7 |
| 3.5.1 | Messgeräte und Hilfsmittel | Measuring instruments and aids | Appareils de mesure et accessoires | 3/7 |
| 3.5.2 | Einstellen der Lichtschranke | Adjusting the light barrier | Réglage de la barrière infrarouge | 3/7 |
| 3.5.3 | Einstellen der Quarzfrequenz | Tuning the quartz frequency | Ajustage de la fréquence du quartz | 3/8 |
| 3.5.4 | Bandlaufkontrolle | Checking the tape motion | Contrôle du défilement de la bande | 3/8 |
| 4. | SCHALTUNGSBESCHREIBUNGEN DER WICHTIGSTEN BAUGRUPPEN | CIRCUIT DESCRIPTION OF MAIN ASSEMBLIES | DESCRIPTION DE PRINCIPALES UNITES | 4/1 |
| 4.1 | Power Supply 1.710.256/260 | Power supply 1.710.256/260 | Alimentation 1.710.256/260 | 4/1 |
| 4.2 | Microprocessor Control 1.710.465 | Microprocessor control 1.710.465 | Contrôle par microprocesseur 1.710.465 | 4/1 |
| 4.3 | Counter Display 1.710.313 | Counter display 1.710.313 | Affichage du compteur 1.710.313 | 4/1 |
| 4.4 | Capstan Motor Control 1.710.461 | Capstan motor control 1.710.461 | Contrôle du moteur de cabestan 1.710.461 | 4/2 |
| 4.5 | Back Tension PCB 1.710.456 | Back tension PCB 1.710.456 | Tendeur de bande PCB 1.710.456 | 4/2 |
| 4.6 | Tape Drive Chassis 1.710.120 | Tape drive chassis 1.710.120 | Mécanisme transport de bande 1.710.120 | 4/2 |
| 4.7 | Interconnection PCB 1.710.471/473 | Interconnection PCB 1.710.471/473 | Circuit d'interconnection PCB 1.710.471/473 | 4/2 |
| 4.8 | Oszillator 1.710.480.81 | Oscillator 1.710.480-81 | Oscillateur 1.710.480-81 | 4/3 |
| 4.9 | Record Equalizer 1.710.486 | Record equalizer 1.710.486 | Égaliseur d'enregistrement 1.710.486 | 4/3 |
| 4.10 | Dolby-C Encoder 1.710.488/489 | Dolby-C encoder 1.710.488/489 | Encodeur Dolby-C 1.710.488/489 | 4/4 |
| 4.11 | Dolby-C Decoder 1.710.492 | Dolby-C decoder 1.710.492 | Décodeur Dolby-C 1.710.492 | 4/4 |
| 4.12 | Mic/Phones Amplifier 1.710.350/351 | Mic/phones amplifier 1.710.350/351 | Amplificateur Mic/Phones 1.710.350/351 | 4/4 |
| 4.13 | Peak Meter Electronics 1.710.361 | Peak meter electronics 1.710.361 | Circuit du Peak Meter 1.710.361 | 4/4 |
| 5. | AUDIOEINSTELLUNGEN | AUDIO ADJUSTMENTS | REGLAGES AUDIO | 5/1 |
| 5.1 | Messgeräte und Hilfsmittel | Measuring instruments and aids | Appareils de mesure et accessoires | 5/1 |
| 5.2 | Kontrollen | Checks | Contrôles | 5/1 |
| 5.2.1 | Kontrolle der Speisespannungen (DC) | Checking the supply voltage (DC) | Contrôle des tensions d'alimentation (DC) | 5/1 |
| 5.2.2 | Kontrolle des Signalweges "vor Band" | Checking and adjusting the signal path without tape | Contrôle du cheminement "avant bande" du signal | 5/2 |
| 5.2.3 | Kontrolle und Eichen des PEAK READING METER's | Checking and calibrating the PEAK READING METER | Contrôle et étalonnage du PEAK READING METER | 5/2 |
| 5.2.4 | Kontrolle und Abgleich der MPX-Fil-ter | Checking and adjusting the MPX filters | Contrôle et alignement des filtres MPX | 5/3 |
| 5.2.5 | Fremd- und Geräuschspannungsab-stand "vor Band" kontrollieren | Checking the weighted and unweight-ed S/N ratio without tape | Contrôle du rapport signal/bruit "avant bande" | 5/3 |
| 5.3 | Messungen und Einstellungen "über Band" | Measurements and adjustments with tape | Mesures et réglages "après bande" | 5/4 |
| 5.3.1 | Einstellen des Wiedergabepegels | Adjusting the reproduce level | Réglage du niveau de lecture | 5/4 |
| 5.3.2 | Azimut des Wiedergabekopfes einstellen | Adjusting the azimuth of the repro-duce head | Réglage de l'azimut de la tête de lecture | 5/4 |
| 5.3.3 | Kontrolle der Schalter TAPE SE-LECTOR | Checking the TAPE SELECTOR switch | Contrôle du commutateur TAPE SELECTOR | 5/5 |
| 5.3.4 | Kontrolle des Wiedergabefrequenz-ganges | Checking the reproduce frequency re-sponse | Contrôle de la courbe de réponse lecture | 5/5 |
| 5.4 | Aufnahmeeinstellungen mit Kasset-ten gemäss IEC I, IEC II und IEC IV | Record adjustments with cassettes conforming to IEC I, IEC II and IEC IV | Réglages de l'enregistrement avec les cassettes IEC I, IEC II et IEC IV | 5/5 |
| 5.4.1 | Kontrolle der Oszillatorfrequenz | Checking the oscillator frequency | Contrôle de la fréquence de l'oscillateur | 5/5 |
| 5.4.2 | Azimut des Aufnahmekopfes einstel-len | Adjusting the azimuth of the record head | Azimut de la tête d'enregistrement | 5/6 |
| 5.4.3 | Einstellen der Vormagnetisierung | Adjusting the tape bias | Réglage de la prémagnétisation | 5/6 |
| 5.4.4 | Aufnahmepegel und -Entzerrung ein-stellen | Adjusting the record level and equal-ization | Réglage du niveau et de la correction à l'enregistrement | 5/7 |
| 5.5 | Messen verschiedener Kenndaten | Measuring various characteristics | Mesure de différentes caractéristiques | 5/7 |
| 5.5.1 | Klirrfaktor k3 von 333Hz | Distortion k3 of 333Hz | Taux de distortion H3 à 333Hz | 5/7 |
| 5.5.2 | Geräusch-/Fremdspannungsabstand "über Band" | Signal-to-noise ratio with tape | Recul du bruit de fond "après bande" | 5/8 |

| | | | | |
|-------|--|--|--|-----|
| 5.5.3 | Löschdämpfung und Kanalübersprechen | Erase depth and interchannel cross talk | Efficacité de l'effacement et diaphonie | 5/8 |
| 5.5.4 | Fremd- und Geräuschspannungsabstand der Mikrofoneingänge | Signal-to-noise ratio of the microphone inputs | Recul du bruit de fond des entrées micro | 5/9 |
| 5.5.5 | Tonhöhenschwankungen | Wow and flutter | Pleurage | 5/9 |
| 6. | SCHEMATA LAUFWERK | TAPE DRIVE-SCHEMATICS | SCHEMAS DE LA COMMANDE DU MECANISME | |
| 7. | SCHEMATA AUDIO | AUDIO-SCHEMATICS | SCHEMAS AUDIO | |
| 8. | ERSATZTEILE | PARTS LIST | LISTES DES PIECES DETACHEES | |
| 9. | TECHNISCHE DATEN | TECHNICAL SPECIFICATIONS | CARACTERISTIQUES TECHNIQUES | |

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Prepared and edited by
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 Printed in Switzerland
 Order no. 18.193.0183

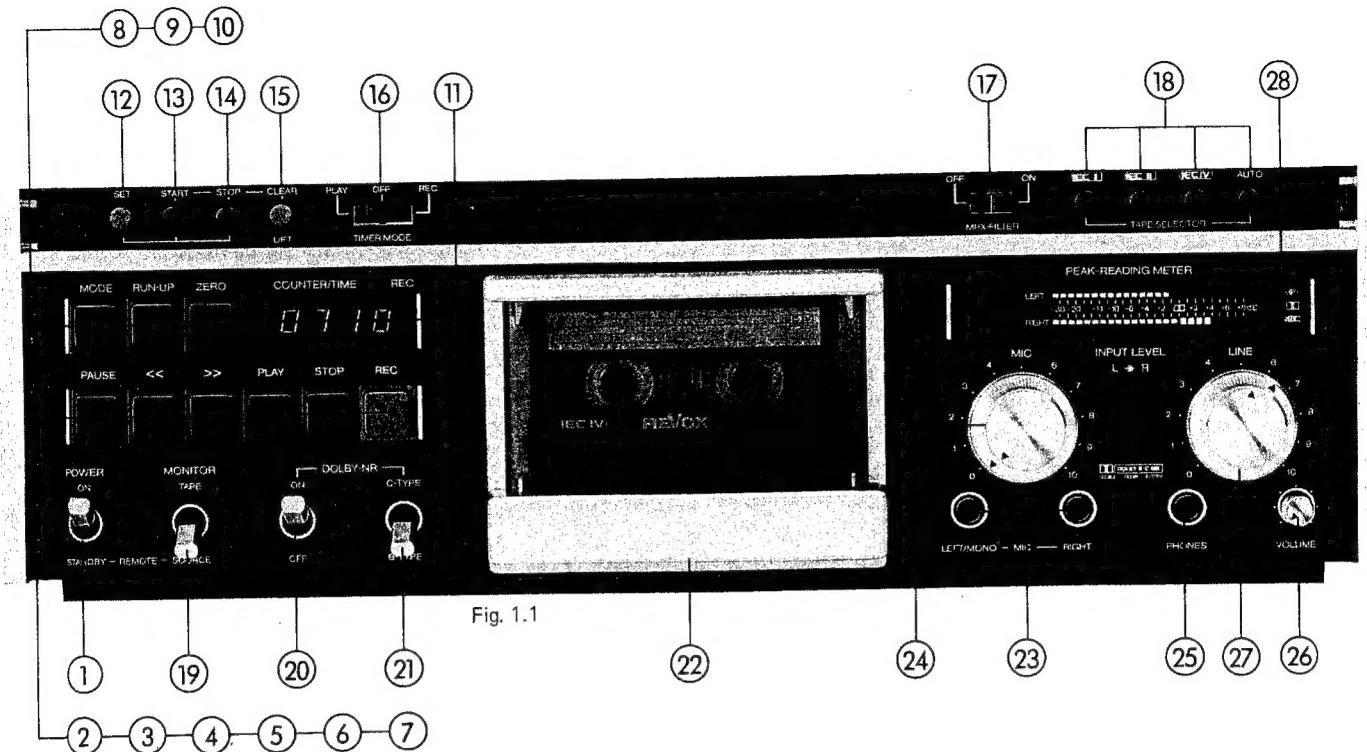


Fig. 1.1

1. ALLGEMEINES

1.1 Laufwerkbedienungselemente

- [1] Netzschalter
- [2] Pausentaste
- [3] Rückspultaste
- [4] Vorspultaste
- [5] Wiedergabetaste
- [6] Stopptaste
- [7] Aufnahmetaste
- [8] Anzeige-Umschalttaste
- [9] Anzeige-Einstelltaste
- [10] Zähler- und Uhrzeit-Rückstelltaste
- [11] Anzeigefeld
- [12] Speicher-Setztaste
- [13] Start-Punkt-Eingabetaste
- [14] Stopp-Punkt-Eingabetaste
- [15] Speicherlöschtaste/Kopfträger-Lift
- [16] Schaltuhr-Betriebsartenwähler
- [22] Kassettenfach

1.2 Wiedergabebedienungs-Elemente

- [18] Bandsorten-Wahltasten
- [19] Vor-/Hinterbandschalter
- [20] Schalter für DOLBY Rauschunterdrückungssysteme
- [21] Wahlschalter DOLBY B oder C
- [25] Kopfhörer-Ausgang
- [26] Lautstärkenregler für den Kopfhörer-Ausgang

1. GENERAL

1.1 Tape transport controls

- [1] Power switch
- [2] Pause key
- [3] Rewind key
- [4] Fast forward key
- [5] Play key
- [6] Stop key
- [7] Record key
- [8] Display mode selector button
- [9] Counter advance key (RUN UP)
- [10] Counter and clock reset button
- [11] Display field
- [12] Memory set button
- [13] Start point input button
- [14] Stop point input button
- [15] Memory clear/headblock lift
- [16] Timer clock mode selector
- [22] Cassette compartment

1.2 Controls for playback mode

- [18] Tape bias selectors
- [19] Source/tape monitoring switch
- [20] DOLBY noise reduction switch
- [21] Selector switch for DOLBY B or C
- [25] Headphones socket
- [26] Volume control for headphones socket

1. GENERALITES

1.1 Organes de commande du mécanisme

- [1] Interrupteur secteur
- [2] Touche PAUSE
- [3] Touche REBOBINAGE
- [4] Touche AVANCE RAPIDE
- [5] Touche LECTURE
- [6] Touche STOP
- [7] Touche ENREGISTREMENT
- [8] Sélecteur d'affichage
- [9] Touche d'avance d'affichage
- [10] Remise à zéro de l'heure et du compteur
- [11] Affichage
- [12] Touche de mémorisation
- [13] Touche de programmation du point de départ
- [14] Touche de programmation du point de l'arrêt
- [15] Touche d'effacement mémoire/Relevage du bloc de têtes
- [16] Sélecteur de modes du timer
- [22] Logement de la cassette

1.2 Organes de commande de la lecture

- [18] Sélecteur de types de bande
- [19] Inverseur de lecture avant/après enregistrement
- [20] Mise en service du réducteur de bruit DOLBY
- [21] Sélecteur DOLBY B ou C
- [25] Sortie casque
- [26] Réglage du niveau de la sortie casque

1.3 Aufnahmebedienungs-Elemente

- [17] MULTIPLEX-Filter Schalter
- [18] Bandsorten-Wahlstellen
- [20] Schalter für DOLBY Rauschunterdrückungssysteme
- [21] Wahlschalter für Rauschunterdrückungssystem DOLBY B oder C
- [23] Mikrofoneingänge
- [24] Pegelregler für Mikrofoneingänge
- [27] Pegelregler für Leitungseingänge
- [28] Aussteuerungsanzeige

1.3 Controls for recording mode

- [17] Multiplex filter switch
- [18] Tape bias selector buttons
- [20] DOLBY noise reduction switch
- [21] Selector switch for DOLBY B or C
- [23] Microphone inputs
- [24] Level control for line inputs
- [27] Level control for microphone inputs
- [28] Peak-reading meter

1.3 Organes de commande de l'enregistrement

- [17] Mise en service du filtre MULTIPLEX
- [18] Sélecteur de types de bande
- [20] Mise en service du réducteur de bruit DOLBY
- [21] Sélecteur DOLBY B ou C
- [23] Entrées microphone
- [24] Ajustage du niveau pour entrées microphone
- [27] Réglage du niveau d'entrée ligne
- [28] Indicateur de modulation

1.4 Anschlussmöglichkeiten**1.4 Connectors****1.4 Possibilités de raccordement****1.4.1 Gerätefrontseite****1.4.1 Front panel****1.4.1 Face avant**

- [23] Mikrofon
- [25] Kopfhörer

- [23] Microphone socket
- [25] Headphones socket

- [23] Entrées microphone
- [25] Casque d'écoute

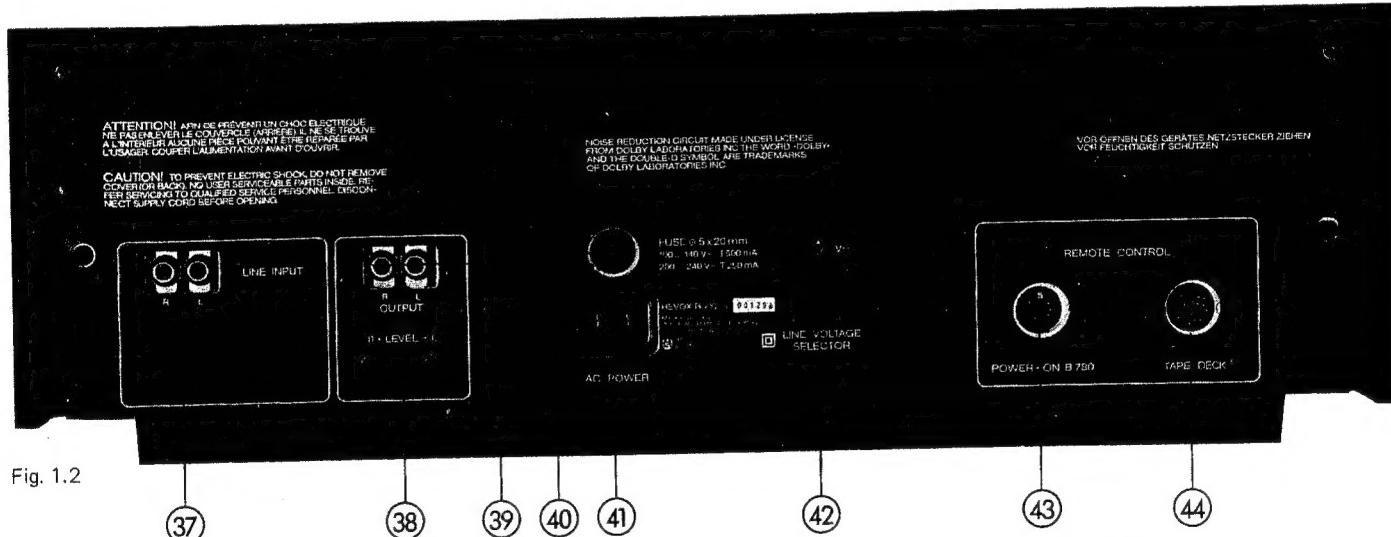


Fig. 1.2

1.4.2 Geräterückseite**1.4.2 Rear panel****1.4.2 Panneau arrière**

- [37] Leitungseingang LINE
- [38] Ausgangspegelregler
- [39] Leitungsausgang LINE
- [40] Netzsicherung
- [41] Netzanschluss
- [42] Spannungswähler
- [43] Anschluss für Timer-Fern einschaltung des Receivers REVOX B780 oder Preceivers REVOX B739
- [44] Anschluss für Laufwerk-Fernsteuerung

- [37] Line inputs LINE
- [38] Line output level controls
- [39] Line outputs LINE
- [40] Power fuse
- [41] Power inlet
- [42] Line voltage selector
- [43] Remote switching of receiver B780 or preceiver B739
- [44] Socket for tape transport remote control (see 1.5)

- [37] Entrées ligne
- [38] Ajustage du niveau de sortie
- [39] Sortie ligne
- [40] Fusible secteur
- [41] Connection secteur
- [42] Sélecteur de tension secteur
- [43] Prise pour télécommande par programmeur horaire de l'ampli/tuner REVOX B780 ou du préamplificateur/tuner REVOX B739
- [44] Prise pour télécommande du mécanisme

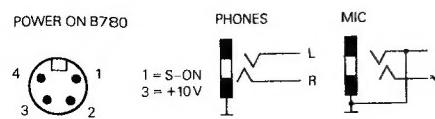
1.5 Steckerbelegung**1.5 Connector pin assignment****1.5 Disposition des connecteurs**

Fig. 1.3

1.6 Pflege und Wartung des Gerätes

Die Wartung des Kassettengerätes REVOX B710 beschränkt sich auf die regelmässige Reinigung von Tonmotorachsen, Andruckrollen, Tonköpfen inkl. Bandführungen sowie des gelegentlichen Entmagnetisierens aller bandberührenden Metallteile.

Für Reinigungszwecke können, wenn keine Kassette eingelegt ist, die Bandführungen und die Tonköpfe durch Drücken der Taste CLEAR [15] angehoben werden (alle für die Reinigung des Laufwerkes nötigen Utensilien sind im REVOX-Reinigungsset Best.Nr. 39000 enthalten).

1.7 Werkzeuge, Einstell-Lehren und Messgeräte, welche für den Service eines B710 gebraucht werden

1.7.1 Laufwerkeneinstellungen

Kreuzschlitzschraubendreher Nr. 1 und 2
Schraubendreher Nr. 2 und 3
Steck- oder Gabelschlüssel 5,5 mm
2 Gabelschlüssel 7 mm
spez. Schraubendreher Best.Nr. 1.337.944
Inbusschlüssel 3 mm
Seegersicherungszange mit Anschlag
Federwaage 0 – 500 gr
Kopfträgerlehre REVOX Best.Nr. 1.710.118/01
Kassettenlaufwerk-Servicestütze
Best.Nr. 1.710.118/04
Loctite 221
Öl PDB 65

1.7.2 Audioeinstellungen

NF-Generator Ri max. 600 Ohm
NF-Millivoltmeter (0,3 mV-30 V),
Ri > 100 kOhm
Oszilloskop
Digitalzählere Bereich bis 10 MHz
DC-Universalinstrument (min. 20 kOhm/V)
Entmagnetisierungsdrossel
Bandpassfilter 1 kHz bzw. 1,5 kHz
Verlängerungsprint Best.Nr. 1.710.495
Schraubendreher Nr. 0 und 00
Kreuzschlitzschraubendreher Nr. 00
Hi-Fi Bezugskassette 4,75 (Fe)
IEC II-Kassette C90 bearbeitet nach Fig. 1.5
IEC II-Kassette C60 bearbeitet nach Fig. 1.6
Regeltrafo

1.6 Care and maintenance of recorder

The maintenance of the REVOX B710 MKII cassette recorder is limited to the periodic cleaning of the capstan shafts, pinch rollers, soundheads and tape path as well as the periodic demagnetizing of all metal parts that come in contact with the tape.

When cleaning the recorder without a cassette loaded, the tape path and the soundheads can be lifted by pressing the CLEAR [15] button.

1.6 Entretien de l'appareil

L'entretien du magnétocassette B710 se limite au nettoyage régulier des axes de cabestan, des galets presseurs, des têtes et des guides de bande ainsi qu'à la démagnétisation occasionnelle de toutes les pièces métalliques en contact avec la bande.

A des fins de nettoyage, les têtes et les guides de bande peuvent être relevés grâce à la touche CLEAR [15], en l'absence de cassette bien sûr.

1.7 Tools, setting gauges, and measuring instruments required for the maintenance of an B710 cassette recorder

1.7.1 Tape transport adjustments

Screwdrivers for cross recessed head screws,
No. 1 and 2
Screwdrivers No. 2 and 3
Socket wrench or open-end wrench 5.5 mm
2 open-end wrenches 7 mm
Special screwdriver No. 1.337.944
Hexagon-socket screw key 3 mm
Retaining ring pliers with detent
Spring dynamometer 0 – 500 g
Headblock gauge REVOX No. 1.710.118/1
Cassette recorder service brace No. 1.710.118/04
Loctite 221
Oil PDP 65

1.7.2 Audio adjustments

AF generator Ri \leq 600 ohms
AF millivoltmeter (0.3 mv-30V),
Ri > 100 kohms
Oscilloscope
Digital frequency counter, range up to 10 MHz
DC multimeter (min. 20 kohms/V)
Head demagnetizer
Band-pass filter, 1 kHz or 1.5 kHz respectively
Extension board, part No. 1.710.495
Screwdrivers No. 0 and 00
Screwdriver for cross recessed head screws,
No. 00
Hi-Fi reference tape cassette 4.75 (Fe)
IEC2 cassette C90, processed acc. to Fig. 1.5
IEC2 cassette C60, processed acc. to Fig. 1.6
Regulating transformer

1.7 Outils, gabarits et appareils de mesure nécessaires au service d'un B710

1.7.1 Réglage de mécanisme

Tournevis cruciforme no. 1 et 2
Tournevis no. 2 et 3
Clé à tube ou clé plate 5,5 mm
2 clés plates 7 mm
Tournevis spécial no. 1.337.944
Clé coudée BTR 3 mm
Pince à circlips avec butée
Gabarit d'alignement des têtes REVOX
no. 1.710.118/01
Support de mécanisme, pour le service,
no. 1.710.118/04
Loctite 221
Huile PDP 65

1.7.2 Réglages audio

Générateur BF, Ri \leq 600 Ohm
Millivoltmètre BF (0,3 mV-30 V),
Ri > 100 kOhm
Oscilloscope
Fréquencemètre digital 10 MHz
Contrôleur universel DC (min. 20 kOhm/V)
Démagnétiseur
Filtre passe-bande 1 kHz ... 1,5 kHz
Circuit imprimé prolongateur no. de commande
1.710.495
Tournevis no. 0 et 00
Cassettes étalon 4,75 Fe
Cassette IEC2 C90 modifiée selon la figure 1.5
Cassette IEC2 C60 modifiée selon la figure 1.6
Transformateur variable

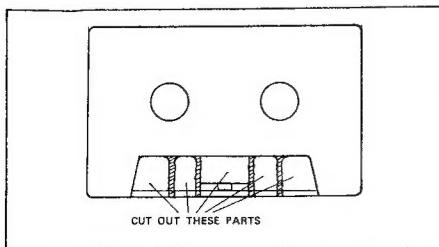


Fig. 1.5

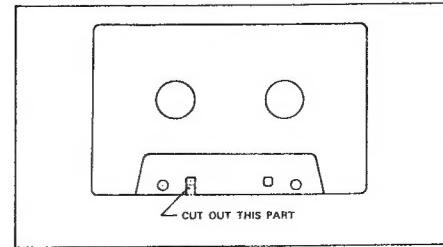


Fig. 1.6



| 2. AUSBAU | 2. DISASSEMBLY | 2. DEMONTAGE |
|---|---|--|
| 2.1 Entfernen des oberen Deckbleches | 2.1 Removing the top cover | 2.1 Dépose de la plaque supérieure |
| – An der Rückseite die beiden Schrauben [A] lösen. – Deckblech nach hinten wegziehen. | – Loosen the two screws [A] on rear. – Pull cover off by sliding it backward. | – Dévissez les deux vis [A] du panneau arrière. – Tirez la plaque vers l'arrière. |
| 2.2 Entfernen des unteren Deckbleches | 2.2 Removing the bottom cover | 2.2 Dépose de la plaque du fond |
| – Gerät auf die Oberseite legen. – Fussleiste entfernen (2 Schrauben). – An der Unterseite 4 Schrauben [B] lösen. – An der Rückseite Schraube [C] lösen. – Unteres Deckblech abheben. | – Place recorder upside-down on a bench. – Remove toe rail (2 screws). – Unfasten 4 screws [B] on bottom. – Loosen 1 screw [C] on rear. – Lift off the bottom cover. | – Posez l'appareil à l'envers sur la table. – Démontez le bandeau inférieur (2 vis). – Dévissez les 4 vis [B] du fond. – Dévissez la vis [C] de l'arrière. – Enlevez la plaque du fond. |
| 2.3 Entfernen der seitlichen Abdeckungen | 2.3 Removing the side covers | 2.3 Dépose des panneaux latéraux |
| – Seitlich 2 Schrauben lösen. – Seitliche Abdeckungen entfernen. | – Loosen 2 screws on each side. – Remove side covers. | – Dévissez 2 vis de chaque côté. – Enlevez les panneaux latéraux. |
| 2.4 Kassettenlaufwerk-Abdeckung entfernen | 2.4 Removing the cassette tape transport cover | 2.4 Dépose du capot du mécanisme |
| – 4 Schrauben [D] lösen. – Die Kassettenlaufwerk-Abdeckung kann nun vorsichtig weggezogen werden. | – Loosen 4 screws [D]. – The tape transport cover can now be carefully removed. | – Dévissez les 4 vis [D]. – Le capot peut alors être enlevé avec précaution. |
| 2.5 Frontplatte ausbauen | 2.5 Removing the front panel | 2.5 Dépose de la face avant |
| – Ausbau gemäss 2.3 und 2.4. – Die Knöpfe der Regler LINE, MIC, VOLUME abziehen. – An den seitlichen Zierleisten je 2 Schrauben lösen und die Zierleisten mit der Abdeckklappe wegnehmen. – Frontplatte vorsichtig über die vier Kippschalter abheben. | – Remove side covers (refer to 2.3). – Pull off MIC, LINE, and VOLUME control knobs. – Loosen 2 screws on each of the lateral trim strips and remove trim strip with hinged cover. – Carefully lift off front panel while clearing the four toggle switches. | – Déposez les panneaux latéraux (voir 2.3). – Enlevez les boutons des potentiomètres MIC, LINE et VOLUME. – Dévissez les 2 vis de chaque montant, déposez ceux-ci ainsi que la cache escamotable. – Déposez la face avant en prenant soin des 4 commutateurs. |

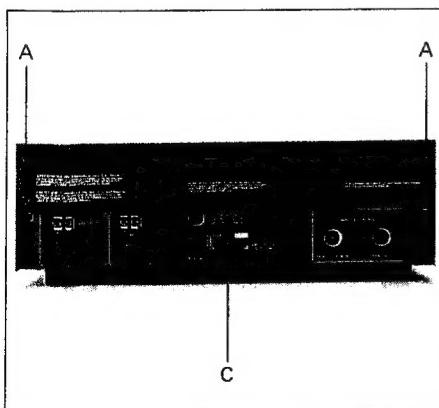


Fig. 2.1

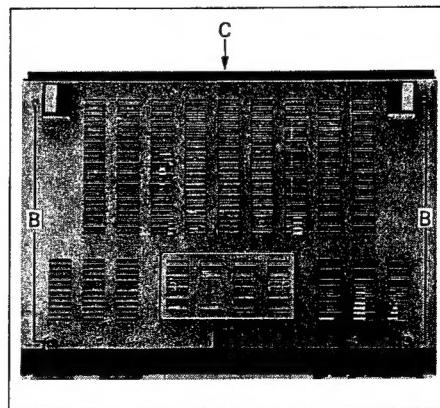


Fig. 2.2

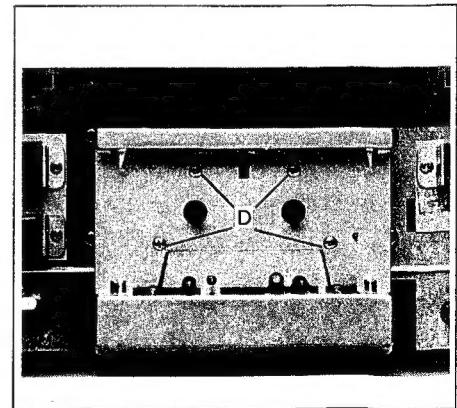


Fig. 2.3

2.6 Obere Traverse ausbauen

- Vier Schrauben [E] lösen (Blattfedern nicht verlieren / nur MKII-Geräte). Die Traverse kann nun über die Schalter weggezogen werden.

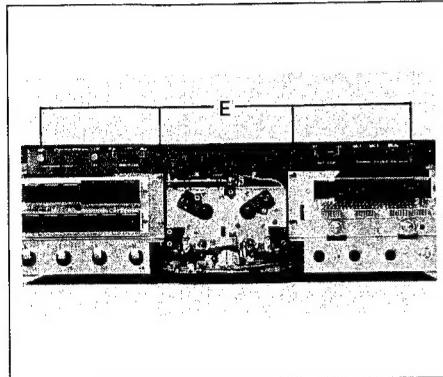


Fig. 2.4

2.6 Removing the top crosstie

- Loosen 4 screws [E] (be careful not to lose leaf springs (only MKII)).
- The crosstie can now be pulled off by clearing the switches.

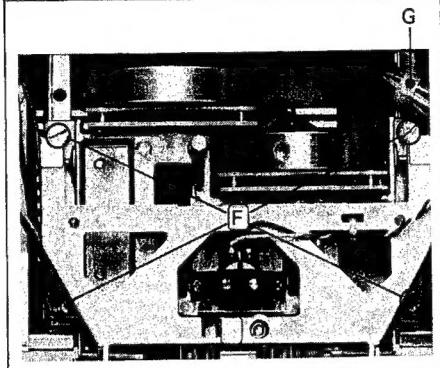


Fig. 2.5

2.6 Dépose de la plaque transversale supérieure

- Dévissez les 4 vis [E] (ne pas perdre les ressorts à lames, seulement MKII).
- La plaque transversale peut maintenant être tirée au dessus des commutateurs.

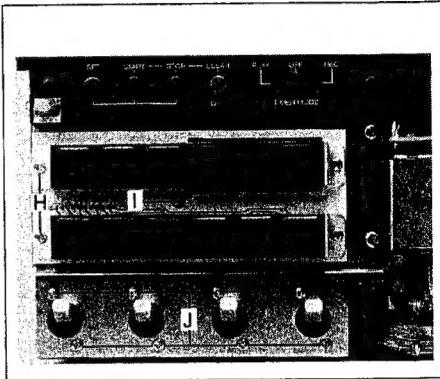


Fig. 2.6

2.7 Komplette Laufwerkseinheit ausbauen

- Ausbau gemäss 2.1, 2.2 und 2.4.
- Oszillatorsteckkarte ausziehen und die Steckverbindungen zur Laufwerkseinheit lösen (MKI-Geräte: Steckverbindungen auf dem Wiedergabe-Verstärkerprint lösen).
- Gerät auf die Oberseite legen.
- Das Motor-Abdeckblech entfernen.
- Die vier Befestigungsschrauben [F] mit den Federn entfernen (Fig. 2.5).
- Die Kabelbride [G] öffnen und das gesamte Laufwerk vorsichtig nach oben aus dem Gerät heben (auf die Kabel achten).

2.7 Removing the complete tape transport

- Detach lower and upper cover plate (refer to 2.1 and 2.2).
- Remove cassette tape transport cover (refer to 2.4).
- Unplug oscillator PCB and disconnect plug connections.
- Place recorder on its top surface.
- Detach cover plate.
- Unfasten the four mounting screws [F] including the springs (Fig. 2.5).
- Open the cable clip [G] and carefully lift the complete tape transport out of the recorder (careful with cables).

2.7 Dépose complète du mécanisme

- Déposez les plaques inférieure et supérieure (voir 2.1 et 2.2).
- Déposez le capot du mécanisme (voir 2.4).
- Retirez la carte de l'oscillateur et défaitez les connexions.
- Posez l'appareil à l'envers.
- Retirez le capot.
- Dévissez les 4 vis de fixation [F] avec les ressorts (fig. 2.5).
- Ouvrez le serre-câbles [G] et extraire soigneusement le mécanisme en le tirant vers le haut et en prenant garde aux câbles.

2.8 Tasten- und Anzeigeprint ausbauen

- Ausbau gemäss 2.5.
- Die Steckverbindungen, welche auf den Tasten- und auf den Anzeigeprint führen, ausziehen.
- Die Endanschlag-Winkel [H] der Tasten- und diejenigen der Anzeigeeinheit entfernen (4 Schrauben).
- Schraube [I] lösen, der Tastenprint kann weggenommen werden.
- Der dahinterliegende Anzeigeprint kann herausgezogen werden.

2.8 Removing the keyboard and display PCBs

- Detach front panel (refer to 2.5).
- Unplug connectors that lead to the keyboard and display PCBs.
- Detach stop brackets [H] of push buttons and those of the display unit (4 screws).
- Loosen screw [I], the keyboard PCB can now be removed.
- The display PCB located behind it can be pulled out.

2.8 Dépose des circuits du clavier et de l'affichage

- Démontez la face avant (voir 2.5).
- Défaitez les connexions qui sont reliées aux circuits du clavier et de l'affichage.
- Retirez l'équerre de butée [H] du clavier ainsi que celle de l'unité d'affichage (4 vis).
- Dévissez la vis [I], le circuit du clavier peut être déposé.
- Le circuit de l'affichage, situé derrière, peut être enlevé.

| | | | | | |
|-------------|---|-------------|--|-------------|---|
| 2.9 | Kippschalter ausbauen | 2.9 | Removing the toggle switches | 2.9 | Démontage des commutateurs à bascule |
| — | Ausbau gemäss 2.5. | — | Detach front panel (refer to 2.5). | — | Déposez la face avant (voir 2.5). |
| — | Die Steckverbindung, welche auf den Kippschalterprint führt, ausziehen. | — | Unplug connectors that lead to the toggle switch PCB. | — | Défaitez les connections du circuit des commutateurs. |
| — | 8 Schrauben [J], welche die Schalter am Chassis befestigen, lösen. | — | Unfasten the 8 screws [J] with which the switches are fastened to the chassis. | — | Dévissez les 8 vis qui fixent les commutateurs au châssis. |
| — | Der ganze Print mit den Schaltern kann nach hinten herausgezogen werden. | — | The complete PCB with the switches can now be pulled out. | — | Le circuit et ses commutateurs peuvent être déposés. |
| 2.10 | PEAK READING METER-Print ausbauen | 2.10 | Removal of PEAK READING METER PCB | 2.10 | Démontage du circuit PEAK READING METER |
| — | Ausbau gemäss 2.5. | — | Remove according to 2.5. | — | Démontage selon 2.5. |
| — | Beide Haltewinkel [K] lösen, die Skalenabdeckung entfernen. | — | Unfasten both brackets [K], remove instrument mask. | — | Déposez les deux équerres [K], enlevez le panneau gradué. |
| — | Die Steckverbindung, welche auf diesen Print führt, lösen. | — | Unplug all connectors that lead to this circuit board. | — | Défaitez les connections qui conduisent à ce circuit. |
| — | Die ganze Einheit, Display und Print kann durch die Öffnung an der Frontseite des Gerätes durch leicht seitliches Verschieben herausgezogen werden. | — | The complete unit, i.e. display and circuit board can be pulled out by slight lateral shifting through the opening on the front panel of the recorder. | — | Toute l'unité, circuit et affichage, peut être extraite par l'ouverture ainsi pratiquée dans la face avant en la tirant légèrement de côté. |

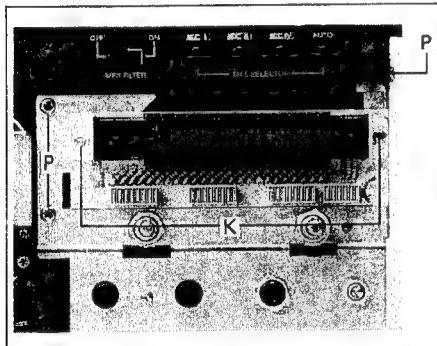


Fig. 2.7

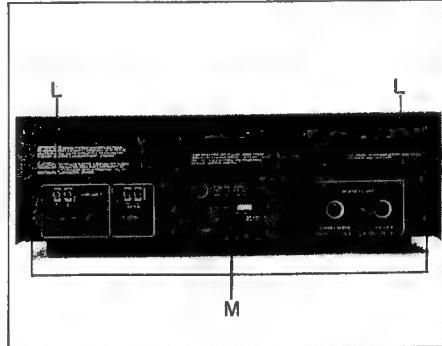


Fig. 2.8

| | | | | | |
|-------------|---|-------------|---|-------------|---|
| 2.11 | MIC/PHONES PCB 1.710.350/351 ausbauen | 2.11 | Removal of MIC/PHONES PCB 1.710.350/351 | 2.11 | Dépose du circuit MIC/PHONES PCB 1.710.350/351 |
| — | Ausbau gemäss 2.10. | — | Remove according to 2.10. | — | Démontage selon 2.10. |
| — | Alle Steckverbindungen zum MIC PHONES-Print ausziehen. | — | Unplug all connectors to the MIC PHONES PCB. | — | Défaitez les connections du circuit MIC PHONES. |
| — | Die Befestigungsmuttern der Eingangsbuchsen und des Lautstärkenreglers PHONES lösen. | — | Loosen fastening nuts of input socket and of PHONES volume control. | — | Enlevez les écrous de fixation des prises d'entrée et du potentiomètre de réglage de volume PHONES. |
| — | Durch Lösen des vorderen Chassis-Teils (3 Schrauben [P], Fig. 2.7) kann der Print herausgezogen werden. | — | The circuit board can be removed by unfastening the front chassis section (3 screws [P], Fig. 2.7). | — | Après avoir déposé la partie avant du châssis (3 vis [P], fig. 2.7), on peut enlever le circuit. |
| 2.12 | Entfernen des hinteren Deckbleches | 2.12 | Removing the rear cover | 2.12 | Dépose du panneau arrière |
| — | Beide Befestigungsschrauben [L] lösen. | — | Unfasten the two mounting screws [L]. | — | Dévissez les deux vis de fixation [K]. |
| 2.13 | Entfernen der Anschlussfeld-Abdeckung | 2.13 | Removing the connector panel cover | 2.13 | Dépose de la plaque recouvrant les connecteurs |
| — | 3 Schrauben [M] lösen, die Abdeckung kann abgenommen werden. | — | The cover can be removed by unfastening screws [M]. | — | Dévissez la vis [L], la plaque peut être enlevée. |

2.14 Lösen der Wickelmotorabdeckung
(nur für Einstellarbeit nötig)

- Ausbau gemäss 2.3.
- 3 Befestigungsschrauben [N] lösen.
- Die Wickelmotorabdeckung kann nach oben geschwenkt werden.

Achtung: Beim Zusammenbau darauf achten, dass der Mitnehmerhebel für die Kassettenverriegelung [O] richtig eingesetzt ist (Fig. 2.10).

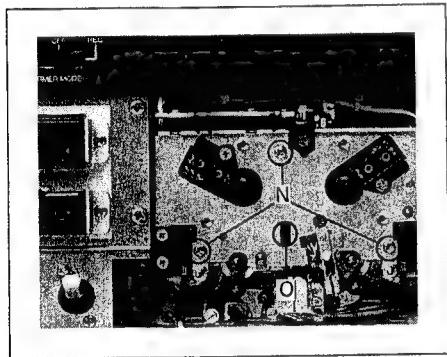


Fig. 2.9

2.14 Unfastening the spooling motor cover
(only necessary for making adjustments)

- Remove according to 2.3.
- Unfasten 3 mounting screws [N].
- The spooling motor cover can be tilted upward.

Caution: When reinstalling, ensure that the coupling pin of the cassette locking mechanism [O] is correctly inserted (Fig. 2.10).

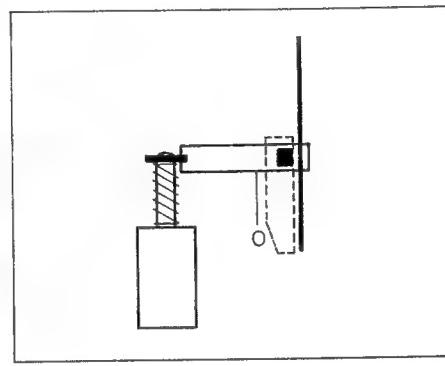


Fig. 2.10

2.14 Dépose du courvercle du moteur de bobinage
(seulement pour réglages)

- Démontage selon 2.3.
- Dévissez les 3 vis de fixation [N].
- Le couvercle du moteur de bobinage peut être tiré vers le haut.

Attention! Lors du remontage, faites en sorte que le levier de verrouillage de la cassette [O] soit bien placé (fig. 2.10).

| 3. LAUFWERKEINSTELLUNGEN | 3. TAPE TRANSPORT ADJUSTMENTS | 3. REGLAGE DU MECANISME |
|---|---|---|
| 3.1 Werkzeuge und Hilfsmittel | 3.1 Tools and aids | 3.1 Outilage et accessoires |
| Kreuzschlitzschraubendreher Nr. 1 und 2 Schraubendreher Nr. 2 und 3 Steck- oder Gabelschlüssel 5,5 mm 2 Gabelschlüssel 7 mm spez. Schraubendreher 1.337.944 Inbusschlüssel 3 mm Seegersicherungszange mit Anschlag Federwaage 0 – 500 gr Kopfträgerlehre REVOX Best.Nr. 1.710.118/01 Loctite 221 Öl PDB 65 spez. Bolzen 256 263 spez. Halterung 1.710.118/04 | Screwdrivers No. 1 and 2 for cross recessed head screws Screwdrivers No. 2 and 3 Socket wrench or open-end wrench 5.5 mm 2 Open-end wrenches 7 mm Special screwdriver 1.337.944 Hexagon-socket screw key 3 mm Retaining ring pliers with detent Spring dynamometer 0 – 500 g Headblock gauge REVOX No. 1.710.118/01 Cassette tape transport service brace 1.710.118/04 Loctite 221 Oil PDP 65 Special pin 256 263 | Tournevis cruciformes No. 1 et 2 Tournevis no. 2 et 3 Clé à tube ou clé plate 5,5 mm 2 clés plates 7 mm Tournevis spécial 1.337.944 Clé coudée BTR 3 mm Pince pour circlips avec butée Dynamomètre 0 – 500 gr Gabarit d'alignement des têtes REVOX no. 1.710.118/01 Support de service pour le mécanisme no. 1.710.118/04 Loctite 221 Huile PDP 65 Boulons spéciaux 256 263 |
| 3.2 Vorarbeiten und Kontrollen | 3.2 Preliminary steps and checks | 3.2 Travaux préliminaires et contrôles |
| Wichtig: Falls das Laufwerk ausgebaut werden muss, beachten Sie bitte folgende Punkte: | Important: If the tape transport must be dismantled, please observe the following precautions: | Important: Si on doit démonter le mécanisme, il faut faire attention aux points suivants: |
| <ul style="list-style-type: none"> – Das Laufwerk darf nicht an den Tonomotor-Rotoren angehoben werden. – Das Laufwerk darf weder auf die Rotoren gestellt noch gelegt werden. – Beide Rotoren sind höchst präzise Bau-teile. Unsachgemäße Behandlung schlägt sich in schlechten Gleichlauf-eigenschaf-ten nieder. | <ul style="list-style-type: none"> – The tape transport must not be lifted by its capstan motor rotors. – The tape transport must not be set down horizontally or vertically on its rotors. – Both rotors are high-precision compo-nents. Improper handling adversely af-fects the wow-and-flutter characteristic. | <ul style="list-style-type: none"> – Le mécanisme ne doit pas être saisi par les rotors des moteurs de cabestan. – Le mécanisme ne doit jamais reposer sur ses rotors. – Les deux rotors sont des pièces de haute précision. Une mauvaise manipulation provoquera une détérioration des caractéristiques de défilement. |
| Das Laufwerk kann in seiner normalen Betriebslage auf den Arbeitstisch gestellt werden. Für Einstellarbeiten am aktiven Laufwerk außerhalb des Gerätes ist eine spez. Halterung Best.Nr. 1.710.118/04 erhältlich. Diese erlaubt, das Laufwerk in drei Positionen zu betreiben. | The tape transport can be placed on the work-bench in its normal operating positions. For making adjustments while the tape transport is running, a service brace, part No. 1.710.118/4 is available with which the tape transport can be operated in 3 different positions. | Le mécanisme peut être posé sur la table de tra-vail dans sa position normale de fonctionne-ment. Pour les travaux de réglage du mécanisme en fonctionnement, un support de service est dis-ponible sous la référence 1.710.118/04. Il per-met de placer le mécanisme dans 3 positions. |
| 3.2.1 Andruckrollen kontrollieren | 3.2.1 Checking the pinch roller | 3.2.1 Contrôle des galets presseurs |
| <ul style="list-style-type: none"> – Das Axialspiel muss 0,1 mm betragen. – Die Andruckrollen müssen sauber und ohne Beschädigung sein. – Sie besitzen ein Sinterlager und sollten nicht geschmiert werden. – Sie müssen leichtgängig drehen. | <ul style="list-style-type: none"> – The axial play must measure 0.1 mm. – The pinch rollers must be clean and not show any signs of wear. – They are equipped with a sintered sleeve bearing and do not require lubrication. – The rollers must rotate freely. | <ul style="list-style-type: none"> – Le jeu axial doit être de 0,1 mm. – Les galets doivent être propres et non endommagés. – Ils sont montés sur coussinets et ne nécessitent aucune lubrification. – Ils doivent tourner librement. |
| 3.2.2 Andruckrollen-Arme kontrollieren | 3.2.2 Checking the pinch roller arms | 3.2.2 Contrôle des bras de galet presseur |
| <ul style="list-style-type: none"> – Das Axialspiel beider Andruckrollen-Arme muss 0,1 mm betragen. – Beide Lagerstellen müssen mit PDP 65 leicht eingehölt sein. – Die Andruckrollen-Arme dürfen während dem Einschwenken nicht klemmen. | <ul style="list-style-type: none"> – The two pinch roller arms must have an axial play of 0.1 mm. – Lightly oil both bearings with PDP 65. – The pinch roller arms should not bind when they engage. | <ul style="list-style-type: none"> – Le jeu axial des bras doit être de 0,1 mm. – Les deux coussinets doivent être légère-ment lubrifiés avec du PDP 65. – Les bras ne doivent pas se bloquer lors du pivotement. |

3.2.3 Position des Zentrierbolzens kontrollieren

- Der Zentrierbolzen sollte auf die Höhe von $16 \text{ mm} \pm 0,2 \text{ mm}$ eingestellt sein.
- Die Anfräslungen [A] müssen horizontal justiert sein (Fig. 3.1).

3.2.4 Kolbendämpfer prüfen

Der Kolbendämpfer [D] muss so eingestellt sein, dass sich der Schwenkträger (keine Kassette eingelegt) beim Drücken der Taste CLEAR schnell aber ohne ein zu starkes Anschlaggeräusch in die jeweilige Position bewegt.

Dieser Vorgang sollte in ca. 0,5 bis 0,8 s ausgeführt sein. Bei zeitweisem Blockieren des Schwenkträgers ist die Dämpfungspumpe [D] und die Achse [C] auf Leichtgängigkeit zu prüfen.

Der Kolbendämpfer wird mit Schraube [B] eingestellt. Die Einstellung muss bei Betriebstemperatur des Andruckmagneten erfolgen. (Fig. 3.2).

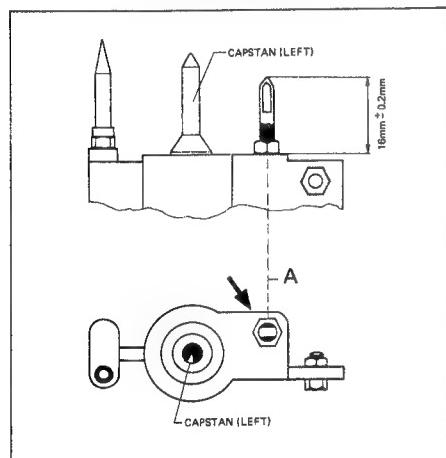


Fig. 3.1

3.2.3 Checking the position of the centering pin

- The centering pin should be adjusted for a height of $16 \text{ mm} \pm 0,2 \text{ mm}$.
- The milled surface [A] must be adjusted horizontally (Fig. 3.1).

3.2.4 Checking the dash pot

Adjust the dash pot [D] in such a manner that the pivoting carrier moves softly into the respective position without impact noise.

This movement should be completed within approx. 0.5 to 0.8 s. If the pivoting carrier binds periodically, the freedom of movement of the dash pot [D] and the shaft [C] must be checked. The dash pot is adjusted with screw [B] for minimum damping action when the pressure solenoid is at operating temperature (Fig. 3.2).

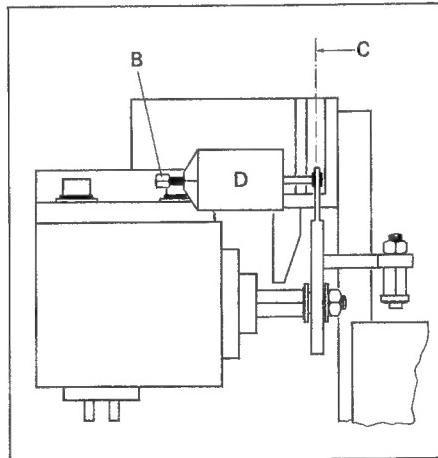


Fig. 3.2

3.2.3 Contrôle de la position du boulon de centrage

- Le boulon de centrage doit être amené à une hauteur de $16 \text{ mm} \pm 0,2 \text{ mm}$.
- Les méplats [A] doivent être ajustés horizontalement. (fig. 3.1).

3.2.4 Vérification de l'amortisseur à piston

L'amortisseur à piston doit être réglé de façon à ce que le support pivotant aille d'une position à l'autre en douceur. Ce mouvement doit durer entre 0,5 et 0,8 s environ. Si le support pivotant venait à se bloquer, il faudrait contrôler le coulissemement de l'amortisseur [D] et de l'axe [C].

L'amortisseur à piston sera réglé, à la température normale de fonctionnement des aimants moteurs, sur un amortissement minimal par la vis [B] selon la fig. 3.2.

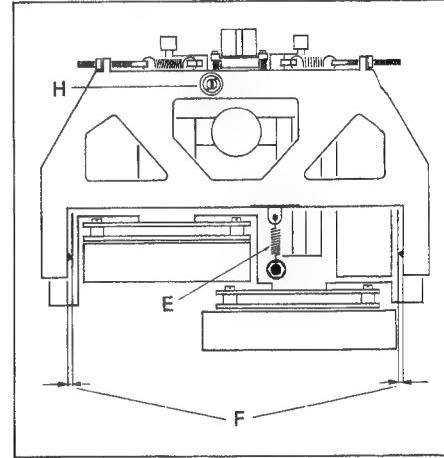


Fig. 3.3

3.2.5 Schwenkträgererdung kontrollieren

- Der Schwenkträger muss über die Rückzugsfeder [E] geerdet sein (Fig. 3.3, Ansicht von unten).

3.3 Einstellen des Schwenkträgers

Der Schwenkträger sollte nach Möglichkeit weder ausgebaut noch die Eintauchtiefe verändert werden.

Köpfe und Andruckrollen, etc. können ohne Ausbau des Schwenkträgers ersetzt werden.

3.2.5 Checking the pivoting carrier

- The pivoting carrier must be connected to ground via the retraction spring [E] (Fig. 3.3, bottom view).

3.3 Adjusting the pivoting carrier

The pivoting carrier is accurately adjusted by the factory. Unless unavoidable, this assembly should be neither dismantled nor should the plunge-in depth be readjusted. The soundheads and the pinch rollers, etc. can be replaced without dismantling the pivoting carrier.

3.2.5 Contrôle de la mise à la terre du support des têtes

- Le support des têtes doit être mis à la terre par l'intermédiaire du ressort de rappel [E] (fig. 3.3, vue de dessous).

3.3 Ajustage du support pivotant

Le support pivotant est ajusté en atelier. Evitez dans la mesure du possible, de le démonter et d'en modifier la profondeur de pénétration. Les têtes, galets presseurs, etc. ... peuvent être déposés sans démonter le support pivotant.

3.3.1 Einstellen des Schwenkträgers

- Ausbau nach Kapitel 2.7 und 2.14.
- Kontrollieren, ob die beiden Gewindestifte an den Drehpunkten des Schwenkträgers so eingestellt sind, dass auf beiden Seiten der Abstand Schwenkträger – Doppelkapstannguss [F] gleich gross ist (Fig. 3.3).
Der Schwenkträger sollte sich spielfrei und ohne zu klemmen in den Drehpunkten bewegen. Falls nötig, die Gewindestifte entsprechend korrigieren, und mit dem Spezialschraubendreher 1.337.944 die dazugehörige Schlitzmutter festdrehen.
- Die Zentrierschraube [G] im Doppelkapstannguss (Fig. 3.5) lösen.
Den Schwenkträger nach oben drücken, bis die Spitze des Gewindestiftes [H] in die Zentrierschraube eintaucht.
- Zentrierschraube durch Festdrehen der Mutter in dieser Position sichern.
- Zur Kontrolle, ob die Eintauchtiefe richtig eingestellt ist, werden beide Andruckrollen im eingeschwenken Zustand des Schwenkträgers (Schalter CLEAR kurzschliessen) von Hand abgehoben und auf Parallelität zu den Tonmotorachsen überprüft.
Falls notwendig kann dies durch geringfügiges Verändern der Eintauchtiefe korrigiert werden:

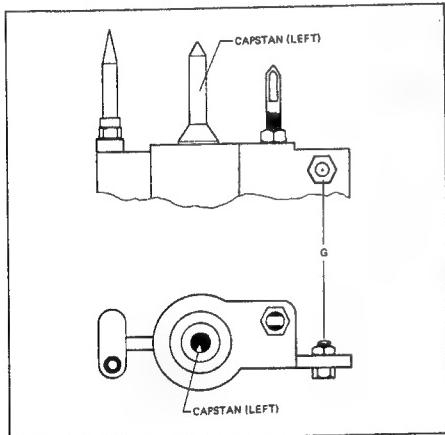


Fig. 3.5

Vorgehen:

- Lehre [1] (1.710.118/01) einlegen.
- Den Mess-Schieber für die Eintauchtiefe [2] mit dem rechtwinkligen Ende gegen die Tonköpfe auflegen (siehe Fig. 3.6).
- Die Eintauchtiefe wird mit der Einstellschraube [H] (Fig. 3.3) so eingestellt, dass das andere Ende des Mess-Schiebers sich im Bereich der eingefrästen Markierung befindet.

3.3.1 Adjusting the pivoting carrier

- Remove as described in Sections 2.7 and 2.14.
- Ensure that the two headless setscrews at the pivoting point of the carrier are adjusted in such a manner that the clearance between pivoting carrier and dual capstan casting [F] is identical on both sides (Fig. 3.3).
The pivoting carrier should move freely and without binding in its pivots. If necessary, adjust the headless setscrews and tighten the corresponding slotted round nut with the aid of the special screwdriver 1.337.944.
- Loosen centering screw [G] in the dual capstan casting (Fig. 3.5). Press pivoting carrier down until the tip of the headless setscrew [H] plunges into the centering screw.
- Retighten centering screw by securing the nut in this position.
- To check whether the plunge-in depth is adjusted correctly, lift both pinch rollers manually with the pivoting carrier in the engaged position (short-circuit CLEAR switch) and check for parallel alignment to the capstan motor shafts.
If necessary this alignment can be adjusted by correcting the plunge-in depth:

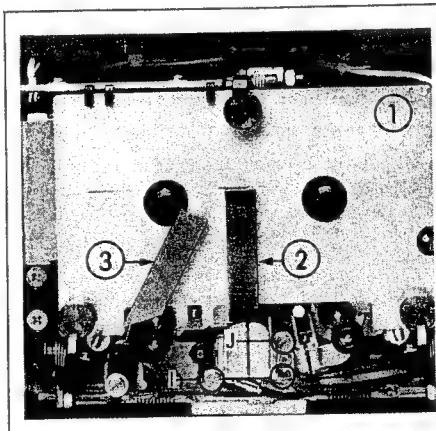


Fig. 3.6

Procedure:

- Insert gauge [1] (1.710.118/01).
- Place slide for measuring the engaged length [2] with its square end against the soundheads (see Fig. 3.6).
- Adjust engaged length by adjusting screw [H] (Fig. 3.3) in such a manner that the opposite end of the measuring slide is located within the area of the milled marking.

3.3.1 Réglage du support pivotant

- Démontage selon 2.7 et 2.14.
- Les tiges filetées des points de rotation doivent être réglées de telle façon que la distance entre le support pivotant et le châssis du double cabestan [F] soit la même de part et d'autre (fig. 3.3).
Le support pivotant doit se déplacer autour des points de rotations sans jouer ni gripper. Le cas échéant, corrigez la position des tiges filetées et serrez l'écrou fenu correspondant.
Dévissez la vis de centrage [G] du châssis du double cabestan (fig. 3.5). Poussez le support pivotant vers le haut. La pointe de la tige filetée [H] doit pénétrer dans la vis de réglage.
- Fixez la vis de centrage dans cette position en serrant l'écrou.
- Pour contrôler le bon réglage de la profondeur de pénétration, on soulève à la main les deux galets presseurs en position de travail du support pivotant (interrupteur CLEAR en court-circuit) et on s'assure de leur parallélisme par rapport aux axes de cabestan.
Si c'est nécessaire, modifiez très légèrement la profondeur de pénétration:

Procédé:

- Placez le gabarit [1] (1.710.118/01).
- Placez l'extrémité à l'angle droit du curseur [2] de réglage de la pénétration contre les têtes magnétiques (voir fig. 3.6).
- Ajustez la profondeur de pénétration à l'aide de la vis [H] (fig. 3.3) de façon à ce que l'autre extrémité du curseur soit en face du repère fraisé.

- Bei eingeschwenktem Schwenkträger die Andruckrollen abheben, bis ein Luftspalt zwischen Kapstanachse und Andruckrolle entsteht.
- Schraube [H] feineinstellen, bis die Andruckrolle zu der Kapstanachse genau parallel steht (beide Rollen kontrollieren).
- Nach beendeter Einstellarbeit wird die Einstellschraube durch Festdrehen der Schlitzmutter fixiert (spez. Schraubendreher 1.337.944).
- With the pivoting carrier engaged, lift pinch rollers off until an air gap between capstan shaft and pinch roller is obtained.
- Fine-adjust screw [H] until the pinch roller is positioned exactly parallel to the capstan shaft (check both rollers).
- After these adjustments have been completed, secure adjusting screw by tightening the slotted round nut (special screwdriver 1.337.944).
- Le support pivotant en position travail, soulevez les deux galets presseurs pour créer un jeu entre les axes de cabestan et les galets.
- Ajustez [H] pour que les galets presseurs soient exactement parallèles aux axes de cabestan.
- Après ce réglage, fixez la vis de fixation en serrant l'écrou fendu avec le tournevis spécial 1.337.944.

3.4 Einstellen der Magnettonköpfe und Andruckrollen

3.4.1 Vorbereitungen

- Der Schwenkträger muss korrekt eingestellt sein.
- Die Höhe des Aufnahme-/Wiedergabekopfes ist mit den Schrauben [I] auf 5 mm voreinzustellen (Fig. 3.7).

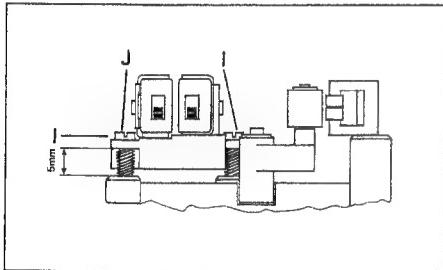


Fig. 3.7

3.4 Adjusting the soundheads and the pinch rollers

3.4.1 Preparatory steps

- The pivoting carrier must be adjusted correctly.
- Preadjust the azimuth of the record/reproduce head with the two screws [I] to 5 mm (Fig. 3.7).

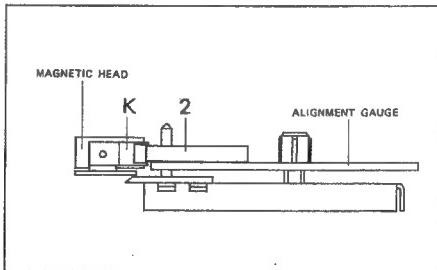


Fig. 3.8

3.4 Ajustage des têtes magnétiques et des galets presseurs

3.4.1 Préliminaires

- Le support pivotant doit être convenablement réglé.
- Ajustez la hauteur de la tête d'enregistrement/lecture à 5 mm grâce aux deux vis [I] (fig. 3.7).

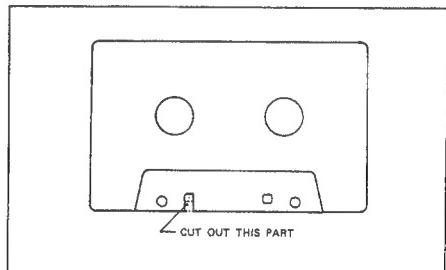


Fig. 3.9

3.4.2 Einstellen der Magnettonköpfe

- Für diese Einstellung wird der Schalter CLEAR kurzgeschlossen (Schwenkträger eingeschwenkt).
- Die Höhe der Magnettonköpfe ist mit Schraube [J] so einzustellen, dass bei eingelegter Lehre Schieber [2], ohne seitlich zu streifen durch die Bandführung [K] (rechts des Wiedergabekopfes) geschoben werden kann (Fig. 3.8).
- Die Kopfbühne ist mit Schraube [J] (Fig. 3.8) so einzustellen, dass der Wiedergabekopf auf Spalthöhe rechtwinklig zu der Kopfträgerlehre steht. (Dies kann mit Schieber [2] kontrolliert werden. Wenn die angefräste Seite gegen den Wiedergabekopf zeigt, muss der Luftspalt zwischen Kopf und Schieber parallel verlaufen.)

- Nach dieser Einstellung die Höhe der Tonköpfe nochmals kontrollieren und ggf nachstellen.
- Die Einstellschrauben müssen mit Loctite 221 gesichert werden.

3.4.2 Adjusting the soundheads

- For the following adjustments short-circuit CLEAR switch (pivoting carrier engaged).
- With the gauge inserted, the azimuth of the soundheads is to be adjusted with screw [J] in such a manner that slide [2] can be pushed through the tape guide [K] (to the right of the reproduce head) without touching the sides (Fig. 3.8).
- Wobble the movable headblock assembly until the gap of the reproduce head is at a right angle to the headblock assembly gauge. (This can be checked with slide [2]. When the milled surface points towards the reproduce head, the air gap between head and slide must run parallel.)

- After this adjustment has been made, recheck the azimuth of the soundheads and readjust if necessary.
- Secure adjusting screws with Loctite 221.

3.4.2 Ajustage des têtes magnétiques

- Pour les ajustements suivants, court-circuitez l'interrupteur CLEAR (support pivotant en position travail).
- Ajustez la hauteur des têtes magnétiques de façon à ce que le curseur [2] du gabarit puisse passer à travers le guide de bande [K] (à droite de la tête de lecture) sans frotter sur le côté (fig. 3.8).
- Réglez la platine des têtes jusqu'à ce que les têtes soient perpendiculaires au gabarit d'alignement. (On peut le contrôler grâce au curseur [2]. Quand la face fraîche est dirigée vers la tête de lecture, l'espace vide entre la tête et le curseur doit être bien parallèle.).

- Après ce réglage, contrôlez la hauteur des têtes magnétiques et réajustez-la si nécessaire.
- Scellez les vis de réglage avec du Loctite 221.

3.4.3 Einstellen des Löschkopfes

Die Höhe des Löschkopfes kann durch Unterlegen spezieller Unterlagscheiben bestimmt werden. Es werden so viele unterlegt, bis der Schieber der Lehre ohne zu streifen durch die Bandführung am Löschkopf hindurch geschoben werden kann.

Der Löschkopf muss so eingestellt werden, dass bei eingeschwenktem Schwenkträger die Distanz Andruckrolle – Löschkopf ca. 0,3 mm beträgt (B710 MKI: ca. 0,6 mm).

Kontrolle:

Kassette (nach Fig. 3.9 abgeändert) einlegen, auf PLAY starten und kontrollieren, ob das Band über dem Löschkopf nicht geknickt wird. Bei Bedarf ist eine geringfügige Veränderung der Löschkopfposition möglich. Die Löschkopfunterlagen sind durch Dicke und Farbton voneinander unterscheidbar:

| | |
|---------------------------|--------------|
| 0,1 mm dunkelgelb (Cu Sn) | 1.710.120-14 |
| 0,15 mm hellgelb (Cu Zn) | 1.710.120-17 |

Anmerkung:

Die Rechtwinkligkeit des Löschkopfes kann nicht verstellt werden; die Herstellertoleranz beträgt ± 2 Grad.

B710 MKI-Ausführung:

In den MKI-Ausführungen wurde der Löschkopf 1.116.711.01 eingesetzt. Als Ersatz wird auch bei diesen Geräten der Löschkopf 1.116.711.02 eingebaut. Dabei muss allerdings die linke Andruckrolle (Durchmesser 8,7 mm durch eine kleinere (Durchmesser 8,0 mm, 1.710.201.00) ersetzt werden.

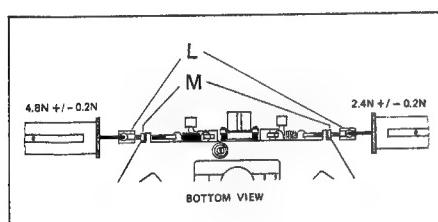


Fig. 3.10

3.4.4 Einstellen der Andruckrollen

- Die Andruckkraft der Andruckrollen wird in eingeschwenktem Zustand des Schwenkträgers eingestellt (Schalter CLEAR kurzschließen).
- Den Spezialbolzen [L] 256 263 an den Gewindestift anschrauben und eine Federwaage einhängen und daran ziehen, bis zwischen der Vierkantmutter [M] und der Halterung ein Luftspalt entsteht.
- Durch Verstellen der Vierkantmutter [M] die Andruckkraft auf folgende Werte einstellen:
linke Andruckrolle $2.4N \pm 0.2N$
rechte Andruckrolle $4.8N \pm 0.2N$

3.4.3 Adjusting the erase head

The azimuth of the erase head can be adjusted with the aid of special shims. Insert as many shims as are required so that the slide of the alignment gauge can be pushed through the tape guide of the head without touching.

The erase head must be aligned in such a manner that the distance between the pinch roller and the erase head is approximately 0.3 mm when the pivoting carrier is in the engaged position. (B710 MKI: approx. 0.6mm)

Check:

Mount cassette (modified as shown in Fig. 3.9) and check that the tape does not buckle above the head. If necessary, slight correction of the erase head position is possible. The erase head shims are color-coded as follows:

| | |
|-----------------------------|--------------|
| 0.1 mm dark yellow (CuSn) | 1.710.120-14 |
| 0.15 mm light yellow (CuZn) | 1.710.120-17 |

Note:

The perpendicularity of the erase head cannot be adjusted; the manufacturing tolerance is $\pm 2^\circ$.

Version B710 MKI:

Erase head 1.116.711.01 has been installed in the MKI versions. If replacement is required, erase head 1.116.711.02 is used also in these recorders. In this case, however, the left-hand pinch roller (diameter 8.7 mm) must be replaced by a smaller roller (diameter 8.0 mm, 1.710.201.00).

3.4.3 Ajustage de la tête d'effacement

La hauteur correcte de la tête d'effacement s'obtient en plaçant des rondelles d'épaisseur spéciales. Le nombre de rondelles doit être tel le curseur du gabarit puisse passer à travers le guide de bande, au niveau de la tête d'effacement, sans frotter.

La tête d'effacement doit être positionnée de façon à ce que, le support pivotant étant en position de travail, la distance entre le galet presseur et la tête d'effacement soit d'environ 0,3 mm. (B710 MKI: env. 0,6mm).

Contrôles:

Introduire une cassette (modifiée selon la fig. 3.9) et assurez-vous que la bande ne se froisse pas au voisinage de la tête d'effacement. On peut modifier très légèrement la position de la tête d'effacement. Les rondelles pour le réglage en hauteur de la tête d'effacement se distinguent par leur épaisseur et leur couleur:

| | |
|-----------------------------|--------------|
| 0,10 mm jaune foncé (Cu Sn) | 1.710.120-14 |
| 0,15 mm jaune clair (Cu Zn) | 1.710.120-17 |

Remarque:

L'orthogonalité de la tête ne peut pas être modifiée; la tolérance de fabrication est de $\pm 2^\circ$.

Version B710 MKI:

La tête d'effacement 1.116.711.01 équipe les appareils MKI. On peut la remplacer par la tête 1.116.711.02, mais alors le galet presseur gauche (diamètre 8,7 mm) doit être remplacé par un autre plus petit (diamètre 8,0 mm, 1.710.201.00).

3.4.4 Adjusting the pinch rollers

- The pinch roller force is adjusted with the pivoting carrier in the engaged position (short-circuit CLEAR switch).
- Screw special pin [L] 256 263 to the headless setscrew, attach a spring dynamometer and pull at the latter until an air gap is created between the square nut [M] and the mounting.
- Correct pinch roller force to the following values by adjusting the square nut [M]:
left-hand pinch roller $2.4 N \pm 0.2 N$
right-hand pinch roller $4.8 N \pm 0.2 N$

3.4.4 Réglage des galets presseurs

- La force d'appui des galets presseurs se règle en position travail du support pivotant (court-circuitez l'interrupteur CLEAR).
- Vissez le boulon spécial [L] 256 263 à la tige filetée, accrochez-y le dynamomètre et tirez jusqu'à ce qu'apparaisse un jeu entre l'écrou à 4 pans [M] et le support.
- En déplaçant l'écrou à 4 pans, réglez les forces d'appui aux valeurs suivantes:
galet presseur gauche: $2.4N \pm 0.2N$
galet presseur droit: $4.8N \pm 0.2N$

Der Hebelarm der Andruckarme ist unterschiedlich; links 1 : 1, rechts 0,7 : 1.

Das axiale Spiel der Andruckrollen und -Arme wird durch nach oben/unten Verschieben des Seegerrings eingestellt. Das Spiel sollte 0,1 mm betragen.

Achtung:

Für diese Einstellung sollte eine kleine Seegeringzange mit Anschlag verwendet werden, da sonst Gefahr besteht, die Ringe zu deformieren.

3.4.5 Andruckmagnet und Kolbendämpfer einstellen

- Beide Befestigungsschrauben des Andruckmagneten (3 mm-Insec/Inbus) lösen (nicht herausdrehen).
- Den Magneten in den hintersten Anschlag schieben.
- Die Mutter des Magnetankers so weit lösen, dass die Tellerfeder nicht mehr vorgespannt ist, die Mutter allerdings noch berührt (dazu sind zwei 7 mm Gabelschlüssel notwendig).
- Kassette einlegen, das Gehäuse des Magneten im hinteren Anschlag festhalten, das Gerät auf Wiedergabe starten und das Gehäuse langsam nach vorne gleiten lassen, bis der Anker ansteht.
- Beide Befestigungsschrauben des Andruckmagneten festziehen.
- Gerät auf Stopp schalten.
- Die Mutter am Anker satt festdrehen, dadurch wird die Tellerfeder zusammengedrückt und im Magneten entsteht ein Luftspalt von ca. 0,25 mm.
- Wechselweise Taste PLAY und STOP drücken und die Bewegung des Schwenkträgers beobachten.

Durch Drehen der Sechskantmutter [B] am Kolbendämpfer (Fig. 3.11) die Dämpfung so einstellen, dass sich der Schwenkträger kontinuierlich und ohne zu rucken in die PLAY- oder STOP-Position begibt (siehe Kapitel 3.2.4).

The lever ratio is unequal: left-hand side 1 : 1, right-hand side 0.7 : 1.

The axial play of the pinch rollers and arms is adjusted by sliding the retaining ring up or down. The play should measure 0.1 mm.

Caution:

This adjustment should be made with retaining ring pliers that feature a detent. This prevents deformation of the rings.

3.4.5 Adjusting the pinch solenoid and the dash pot

- Loosen (without removing) the mounting screws (3 mm hexagon-socket head) of the pinch solenoid.
 - Slide the magnet to the rear stop position.
 - Loosen the nut of the armature to the point where the disc spring is no longer tensioned but still contacts the nut (two 7 mm open-end wrenches are required for this).
 - Load cassette, retain the housing of the magnet in the rear stop position, start the recorder in play mode and carefully allow the housing to slide forward until the armature touches.
 - Secure both mounting screws of the pinch solenoid.
 - Switch recorder to stop mode.
 - Firmly tighten the nut on the armature. As a result, the disc spring will be squeezed together and an air gap of approx. 0.25 mm is created in the solenoid.
 - Alternately press PLAY and STOP keys and check the movement of the pivoting carrier.
- By rotating hexagon nut [B] on the dash pot (Fig. 3.11), adjust the damping action in such a manner that the pivoting carrier moves continuously and freely without jerking into the PLAY or the STOP position (refer to 3.2.4).

Les leviers de bras de galet presseur sont différents: 1 : 1 à droite, 0,7 : 1 à gauche.

Le jeu axial des galets presseurs et le leurs bras se règle par le déplacement vers le haut ou le bas du circlips. Le jeu doit être de 0,1 mm.

Attention:

Ce réglage nécessite une pince pour circlips avec butée pour éviter de les déformer.

3.4.5 Réglage de l'électro-aimant d'appui et de l'amortisseur à piston

- Desserrez l'écrou du noyau plongeur de façon à ce que le ressort à lames ne soit plus comprimé mais touche encore l'écrou. Cette opération nécessite deux clés plates 7 mm.
- Introduisez une cassette dans l'appareil, maintenez le boîtier de l'électro-aimant en butée arrière, démarrez l'appareil en lecture et laissez glisser lentement le boîtier vers l'avant jusqu'à ce que le noyau plongeur se positionne dans le boîtier.
- Serrez à fond les deux vis de fixation de l'électro-aimant d'appui.
- Commutez l'appareil sur STOP.
- Serrez à fond l'écrou du noyau plongeur afin de comprimer le ressort à lames et de produire un jeu d'environ 0,25 mm dans l'électro-aimant.
- Appuyez tour à tour sur les touches PLAY et STOP et observez le mouvement du support pivotant.
- Réglez l'amortissement avec l'écrou à 6 pans [B] de l'amortisseur à piston de façon à obtenir un mouvement continu et sans à-coups du support pivotant lorsqu'il se rend en position PLAY ou STOP (voir chapitre 3.2.4).

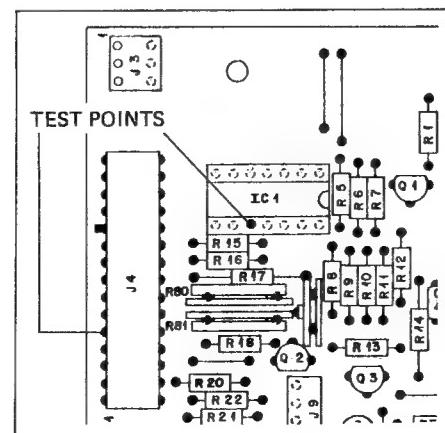


Fig. 3.12

| TAPE | IC1 PIN10 OR J4 PIN5 |
|--------------------------|----------------------|
| WITHOUT TAPE | 5V +0/-0.2V |
| C120 PHILIPS FERRO | 1V +/ -0.2V |
| LEADER TAPE TDK OD,SA,MA | 4V +/ -0.2V |

Fig. 3.13

Fig. 3.11

3.4.6 Tonmotoren

- Wenn es nicht unbedingt erforderlich ist, sollten die Tonmotoren nicht zerlegt werden.

3.4.6 Capstan motors

- The capstan motors should not be disassembled unless absolutely necessary.

3.4.6 Moteurs de cabestan

- Autant que possible, évitez de démonter les moteurs de cabestan.

3.5 Elektrische Laufwerkeinstellungen**3.5.1 Messgeräte und Hilfsmittel**

Oszilloskop oder hochohmiges Voltmeter ($> 1 \text{ MOhm}$)
Abgleichschraubendreher
Frequenzähler mit Probe 10 : 1, C max. 15 pF

3.5 Adjustments to the tape transport electronics**3.5.1 Measuring instruments and aids**

Oscilloscope or high-impedance voltmeter ($> 1 \text{ Mohm}$)
Alignment screwdriver
Frequency counter with sensor 10 : 1, C < 15 pF

3.5 Réglages électriques du mécanisme**3.5.1 Appareils de mesure et accessoires**

Oscilloscope ou voltmètre à haute impédance ($> 1 \text{ MOhm}$)
Tournevis de réglage
Fréquencemètre digital avec sonde 10:1, C < 15 pF

3.5.2 Einstellen der Lichtschranke

- An IC1 Pin 10 (Mikroprozessorprint 1.710.465) oder an Steckerleiste J4, Pin 5 Oszilloskop oder hochohmiges Voltmeter ($> 1 \text{ MOhm}$) gegen Masse anschliessen (Fig. 3.12).
- Trimmopotentiometer R 79 gemäss Fig. 3.13 einstellen. Die Spannungsunterschiede von Vorspann- und Magnetband zur Schaltschwelle auf Symmetrie gegenüber einander einstellen.
Beispiel:

| | | |
|----------------|-------|-------------------|
| Magnetband | 1,2 V | Unterschied 1,3 V |
| Schaltschwelle | 2,5 V | |
| Vorspannband | 3,8 V | |

Achtung: Bei dieser Einstellung muss die Lichtschranke vor Fremdlicht geschützt sein, da sonst die Messresultate verfälscht werden.

Um die Möglichkeit einer fehlerhaften Einstellung (schlechte Vorspannqualität) zu vermeiden, kann auch mit einer Dichtekassette gearbeitet werden (Best.Nr. 46038).

Kontrolle:

- Kassette an den Anfang zurückspulen. Das Gerät muss während dem Vorspann auf Stop gehen. Danach sollte es bis an den Anfang des Magnetbandes vorspulen, auf Stop gehen und den Zähler auf Null setzen.
Achtung: Die Speicher müssen gelöscht sein.
- Kassette vorspulen. Am Bandende muss das Gerät während dem Vorspannband stoppen.

3.5.2 Adjusting the light barrier

- Connect oscilloscope of high-impedance voltmeter ($> 1 \text{ Mohm}$) to IC1 pin 10 (microprocessor board 1.710.465) or multipoint connector J4 pin 5 against ground (Fig. 3.12).
- Adjust trimmer potentiometer R79 as shown in Fig. 3.13. Adjust potential difference between leader and magnetic tape relative to switching threshold in such a manner that mutual symmetry is achieved.
Example:

| | | |
|-------------------|-------|------------------|
| Magnetic tape | 1.2 V | Difference 1.3 V |
| Threshold voltage | 2.5 V | |
| Leader | 3.8 V | |

Important: For this adjustment, the light barrier must be screened against other light sources. This prevents incorrect measurements.

To prevent the possibility of incorrect adjustments (poor leader quality), a density cassette can also be used (part No. 46038).

Verification:

- Rewind cassette to beginning of tape. The recorder should change to STOP mode during the leader after which it should wind forward to the beginning of the tape, reenter STOP mode, and reset the tape counter to zero.
Caution: The memory must be cleared.
- Wind cassette tape forward. When reaching the leader at the opposite end, the recorder should stop.

3.5.2 Réglage de la barrière infrarouge

- Branchez un oscilloscope ou un voltmètre à haute impédance ($> 1 \text{ MOhm}$) sur la broche 10 du circuit intégré IC1 (circuit du microprocesseur 1.710.465) ou sur la broche 5 du connecteur J4 (fig. 3.12).

Ajustez le trimmer R79 selon la fig. 3.13 de façon à ce que la différence de tension entre la bande amorce et la bande magnétique soit symétrique par rapport au seuil de commutation.

Exemple:

| | | |
|----------------------|-------|------------------|
| Bande magnétique | 1.2 V | Différence 1,3 V |
| Seuil de commutation | 2,5 V | |
| Bande amorce | 3,8 V | |

Attention: Pour ce réglage, évitez toute lumière parasite qui pourrait fausser la mesure.

Pour éviter d'effectuer un mauvais réglage (mauvaise tension de bande), on peut travailler avec une cassette très "serrée" (no. 46038).

Contrôle:

- Rebobinez la cassette jusqu'au début. L'appareil doit passer sur stop durant l'amorce. Il doit ensuite bobiner jusqu'au début de la bande magnétique, passer en fonction stop et remettre le compteur à zéro.
Attention: le contenu des mémoires doit être effacé.
- Faites défiler la bande. En fin de bande, l'appareil doit s'arrêter sur l'amorce.

3.5.3 Einstellen der Quarzfrequenz

- Frequenzzähler an Testpunkt [N] anschliessen (Fig. 3.14).
- Quarzfrequenz mit C22 auf 4 MHz \pm 5 Hz einstellen.
Dieser Abgleich sollte bei einer Raumtemperatur von 22 Grad Celsius durchgeführt werden (bei max. Einstelltoleranz beträgt die Abweichung der Uhr ca. 0,1 s/Tag bei konstanter Temperatur).

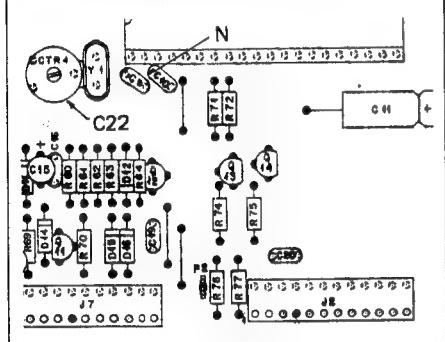


Fig. 3.14

3.5.3 Tuning the quartz frequency

- Connect frequency counter to test point [N] (Fig. 3.14).
 - Tune quartz frequency with C22 to 4 MHz \pm 5 Hz.
- This adjustment should be made with an ambient temperature of 22° C (with maximum tolerance, the error rate of the clock is approximately 0.1 s/day with constant ambient temperatures).

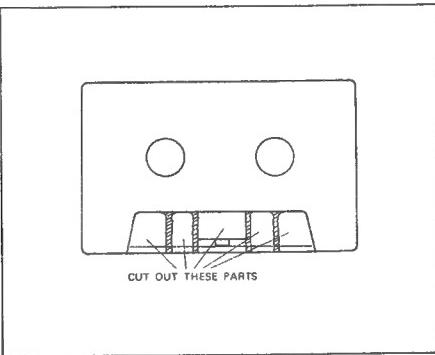


Fig. 3.15

3.5.3 Ajustage de la fréquence du quartz

- Raccordez le fréquencemètre digital au point de test [N] (fig. 3.14).
 - Ajustez la fréquence du quartz à 4 MHz \pm 5 Hz grâce à C 22.
- Cet étalonnage doit se faire à la température ambiante de 22 degrés (à la tolérance maximale de réglage, la précision de l'horloge est de 0,1 s/jour env. à température constante).

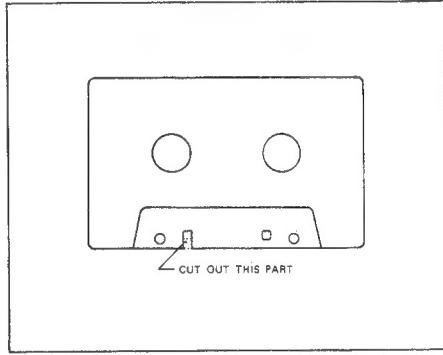


Fig. 3.16

3.5.4 Bandlaufkontrolle

Hilfsmittel: Kassette A (Cr O₂/IECII, C90) nach Fig. 3.15 bearbeiten.
Kassette B (Cr O₂/IECII, C60) nach Fig. 3.16 bearbeiten.

- Laufwerk reinigen und Kassette A einlegen.
- Gerät auf Wiedergabe starten und den Spannungsabfall über R26 (MICROPROCESSOR PCB 1.710.465 / Fig. 3.17) messen.
Messpunkte: Plus-Pol von C17 (Masse) und IC11 Pin 2.
Sollwert: 0,9 bis 1,2 V.
- Nach ca. 10 Minuten Wiedergabebetrieb den Spannungsabfall über R27 messen.
Messpunkte: Plus-Pol von C17 (Masse) und IC11 Pin 6.

3.5.4 Checking the tape motion

Aids: Cassette A (Cr O₂/IECII, C90) processed according to Fig. 3.15)
Cassette B (Cr O₂/IECII, C60, processed according to Fig. 3.16)

- Clean tape transport and load cassette A.
- Start recorder in play mode and measure potential drop across R26 (MICROPROCESSOR PCB 1.710.465 / Fig. 3.17).
Desired value: 0.9 to 1.2 V.
- After approx. 10 minutes of playing time, measure the potential drop across R27.

3.5.4 Contrôle du défilement de la bande

Accessoires: Cassette A (Cr O₂/IECII, C90) modifiée selon fig. 3.15.
Cassette B (Cr O₂/IECII, C60) modifiée selon fig. 3.16.

- Nettoyez le mécanisme et introduisez la cassette A.
- Mettez l'appareil en lecture et mesurez la chute de tension aux bornes de R26 (MICROPROCESSOR PCB 1.710.465 / fig. 3.17).
Valeur nominale: 0,9 à 1,2 V, ce qui correspond à un moment d'enroulement d'environ 0,004 Nm / 40 cm/p.
- Après environ 10 minutes de fonctionnement en mode lecture, mesurez la chute de tension aux bornes de R27.

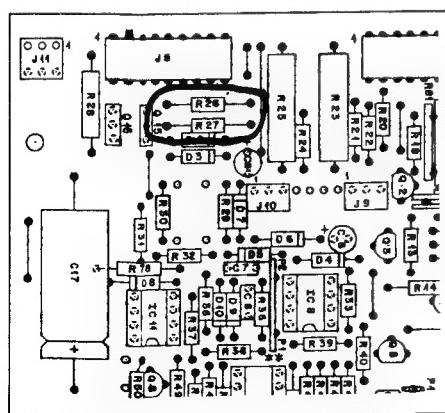


Fig. 3.17

- Mit R5 (auf Wickelmotor-Kontrollprint 1.710.462) den Spannungsabfall auf 130 mV einstellen (< 0,001 Nm / < 10 cm/p).
 - With R5 (spooling motor control PCB 1.710.462), adjust potential drop to 130 mV (0.001 Nm / 10 cm/p).
 - Mit Kassette A lässt sich der Bandlauf gut beobachten. Das Band darf weder an den Bandführungen streifen noch sonst irgendwie deformiert werden. Durch die Spiegeloberfläche des Chrombandes wäre dies sofort ersichtlich.
 - The tape motion can easily be monitored with cassette A. The tape should neither brush against the tape guidance elements nor be deformed in any other manner. With the mirror-like finish of the chromium tape, this can easily be noticed.
- Bandzugkontrolle:
- Kassette B einlegen.
 - Im Wiedergabebetrieb mit einem kleinen Schraubendreher eine Schlaufe von ca. 5 mm Länge aus der Kassette ziehen. Da der Durchmesser der rechten Tomotorachse geringfügig grösser ist, muss die Bandschlaufe nach spätestens 100 s verschwunden sein.
- Checking the tape tension:
- Load cassette B.
 - With the recorder operating in play mode, use a fine screwdriver to pull out a loop of approximately 5 mm. Since the diameter of the right-hand capstan shaft is slightly larger, the tape loop should disappear within 100s at the latest.
- Réglez celle-ci à 130 mV (0,001 Nm / 10 cm/P) grâce à R5 (sur le circuit de contrôle des moteurs de bobinage 1.710.462). La cassette A permet de bien observer le défilement de la bande. Celle-ci ne doit ni frotter sur les guides ni être déformée, ce qui se voit immédiatement à l'aspect de la surface supérieure de la bande au Cr O₂.
- Contrôle de la tension de bande:
- Mettez la cassette B dans l'appareil.
 - En mode lecture, extraitez une petite boucle de bande (env. 5 mm) hors de la cassette. Comme le diamètre de l'axe de cabestan droit est très finement supérieur à celui de gauche, la boucle doit être résorbée en 100 s au plus.



4. SCHALTUNGSBESCHREIBUNGEN DER WICHTIGSTEN BAUGRUPPEN

4.1 Power Supply 1.710.256/260

Die Sekundärseite des Netztransformators weist zwei getrennte Wicklungen auf, wovon die eine (für die 5 V-Stabilisierung) unmittelbar nach dem Einsticken des Netzsteckers den Stabilisator speist.

Die zweite Wicklung wird, abhängig vom Befehl der Mikroprozessor-Logik über ein Relais eingeschaltet. Der Schalter POWER ON-STAND BY wirkt dabei indirekt auf den Speise- spannungskreis mit den beiden Spannungs- reglern für +15 V und -15 V und auf die beiden unstabilisierten Spannungen für die Laufwerk- versorgung.

4.2 Microprocessor Control 1.710.465

Das zentrale Element dieser Platine ist ein Ein-Chip Prozessorbaustein, welcher sowohl die gesamte Laufwerklogik von der Befehlseingabe im Multiplex-Betrieb (IC4, 5, 6), die Ansteuerung beider Wickelmotoren (über IC9, 8, 10) und der Treiberstufen (BDW 94, Q16, Q17) für beide Zugmagnete wie auch die Informationsverarbeitung des Bandzählers (über IC1, Q4, IC2) für die Ausgänge (J2, Pin 10, 11, 12) auf den Counter- Display-Baustein in serieller Form realisiert.

Ausserdem werden folgende Funktionen überwacht und koordiniert:

- Freigabesignal Y-SYNC für Synchronlauf der beiden Tonmotoren (diese werden völlig getrennt von der Prozessorsteuerung geregelt)
- die Aufnahmefreigabe Y-REC
- die zeitliche Steuerung der Audio- Stummschaltbefehle Y-MUTE 1 und Y-MUTE 2.

Da der Prozessor-Takt quarzgesteuert wird, ist es möglich, zusätzlich eine Uhr mit genügend hoher Genauigkeit zu realisieren, welche auch den Schaltuhr-Betrieb erlaubt.

4.3 Counter Display 1.710.313

Die vier 7-Segment Anzeigen erhalten ihre Steuersignale über den Serien-Parallel Wandler SAA 1060. Das seriell ankommende Signal Y-DATA wird abwechselnd in 2 verschiedene Register eingelesen, welche mit Netzfre- quenz im Duplexbetrieb umgeschaltet werden. Dasselbe erfolgt auch mit der Stromversorgung von jeweils 2 Anzeige-Einheiten über D1 und D2. Dadurch können mit nur 14 Signalausgängen 4 x 7 Segmente verdrahtet und angesteuert wer- den.

4. CIRCUIT DESCRIPTION OF MAIN ASSEMBLIES

4.1 Power Supply 1.710.256/260

The secondary side of the power transformer features two distinct windings of which one (for the 5 V stabilization) supplies the stabilizer as soon as the recorder is connected to an AC outlet. The second winding is switched off via a relay under the control of the microprocessor logic. The POWER ON-STAND BY acts indirectly on the supply voltage circuit with the two +15 V and -15 V voltage regulators and on the two unstabilized voltages for the tape transport.

4. DESCRIPTION DES PRINCIPALES UNITES

4.1 Alimentation 1.710.256/260

Le secondaire du transformateur comprend deux bobinages séparés. L'un d'eux (pour le régulateur 5 V) alimente le stabilisateur dès que l'appareil est raccordé au secteur.

Le deuxième bobinage est commuté par un relais commandé par le microprocesseur. Le commutateur POWER ON agit indirectement sur l'alimentation, stabilisée pour le +15 V et le -15 V, non stabilisée pour les deux tensions nécessaires au mécanisme.

4.2 Microprocessor control 1.710.465

The central element of this board is a one-chip microprocessor in which the entire tape transport logic, including command input in multiplex mode (IC4, 5, 6), control of the two spooling motors (via IC9, 8, 10) and the driver stages (BDW 94, Q16, Q17) for both tension magnets, as well as the information processing of the tape counter (via IC1, Q4, IC2) for the outputs (J2, pins 10, 11, 12) on the counter display chip are implemented in serial form. The following functions are also monitored and coordinated:

- Enable signal Y-SYNC for synchronous running of the two capstan motors (these are regulated individually by the processor control)
- Record enable Y-REC
- Timing of the audio muting commands Y-MUTE 1 and Y-MUTE 2.

Since the processor clock is quartz-controlled, a clock with sufficient accuracy can be implemented for timer operations.

4.2 Contrôle par microprocesseur 1.710.465

L'élément central de cette platine est un processeur monochip qui réalise, en mode multiplexe (IC4, 5, 6) la commande des moteurs de bobinage (par IC9, 8, 10) et des étages de puissance (BDW 94, Q16, Q17) des deux électro-aimants et en mode série le traitement de l'information du compteur de défilement de la bande (par IC1, Q4, IC2) pour le circuit d'affichage du compteur par les sorties J2 (broches 10, 11 et 12).

De plus, il supervise ou coordonne les différentes fonctions suivantes:

- Signal de relaxation Y-SYNC pour la synchronisation des deux moteurs de cabestan (leur régulation est totalement indépendante du microprocesseur).
- Signal de relaxation Y-REC.
- Commande temporelle des ordres de silencieux Y-MUTE 1 et Y-MUTE 2.

Comme les cycles du processeur sont déterminés par un oscillateur à quartz, il est possible de réaliser une horloge d'assez haute précision pour fonctionner en tant que timer.

4.3 Counter display 1.710.313

The four 7-segment displays receive their control signals via the serial/parallel converter SAA 1060. The signal Y-DATA which arrives in serial form is read alternately into two different registers which are changed over with line frequency in duplex mode. The same occurs with the power supply of 2 display units each via D1 and D2. In this manner only 14 signal outputs are required for accessing and controlling 4 x 7 segments.

4.3 Affichage du compteur 1.710.313

Les quatre afficheurs 7 segments sont commandés par le convertisseur série-parallèle SAA 1060. Le signal d'entrée, série, Y-DATA est alternativement stocké dans deux registres commutés en mode duplex par la fréquence du secteur. Il en est de même pour l'alimentation en courant d'à chaque fois deux afficheurs à travers les diodes D1 et D2. On parvient ainsi à commander et à câbler 4 x 7 segments avec seulement 14 pistes.

4.4 Capstan Motor Control 1.710.461

Für die beiden nach dem MDD-Prinzip aufgebauten Tonmotoren werden separate Regelkreise verwendet. Die Referenzfrequenz beziehen sie von einem gemeinsamen Oszillator, gebildet aus IC3 mit dem Quarz 3.072 MHz und dem Frequenzteiler IC2.

IC5 resp. IC7 bilden die Verstärker/Begrenzer für das Tachosignal. IC4 resp. IC6 sind als Phasenkomparatoren verschaltet. Die Ausgangssignale an Pin 9 und 15 werden über Trägerfilter mit Kompensationsnetzwerk zur Ansteuerung von Q1 resp. Q2 aufgearbeitet, wodurch der Ansteuerstrom für die vier Transistoren Q1 bis Q4 am Tonmotor 1.021.516 geliefert wird.

4.4 Capstan motor control 1.710.461

For the two capstan motors, separate MDD-type closed loops are used. They obtain the reference frequency from a common oscillator consisting of IC3 with a 3.072 MHz quartz and frequency divider IC2.

IC5 or IC7 are the amplifiers/limiters for the tacho signal. IC4 or IC6 are laid out as phase comparators. The output signals at pins 9 and 15 are processed via carrier filters with a compensation network for controlling Q1 or Q2 respectively, thereby supplying the control current for the four transistors Q1 through Q4 on the capstan motor 1.021.516.

4.4 Contrôle de moteur de cabestan

Chaque moteur de cabestan, construit selon le principe MDD, possède son propre asservissement. Ils tiennent leur fréquence de référence d'un oscillateur commun, formé par IC3, le quartz 3,072 MHz et le diviseur de fréquence IC2.

IC5 (resp. IC7) est un amplificateur/limiteur pour le signal tachymétrique. IC4 (resp. IC6) est utilisé en comparateur de phase. Les signaux de sortie, issus des broches 9 et 15 sont mis en forme par un filtre de porteuse muni d'un réseau de compensation pour commander Q1 (resp. Q2) qui livre le courant de commande aux quatre transistors Q1 à Q4 pour le moteur de cabestan 1.021.516.

4.5 Back Tension PCB 1.710.456

Dieser auf den Prozessorprint aufgesteckte Schaltungszusatz bewirkt bei Bandstillstand und eingelegter Kassette ein leichtes Gegendrehmoment am linken Wickelmotor.

Damit wird eine Schleifenbildung bei lose gewickelter oder sehr leichtgängiger Kassette vermieden.

4.5 Back tension PCB 1.710.456

This auxiliary circuit which is mounted on the processor board ensures that a slight counter-rotational torque prevails at the left-hand spooling motor if a cassette has been loaded and the tape stands still.

This prevents the formation of loops with loosely wound or very easily rotating tape pancakes.

5.4 Tendeur de bande PCB 1.710.456

Ce circuit supplémentaire, enfiché sur le circuit du microprocesseur, suscite un léger couple de la part du moteur de bobinage gauche pour tendre la bande lorsque celle-ci est au repos.

Cela évite la formation de boucles dans une cassette bobinée trop lâche ou mal serrée.

4.6 Tape Drive Chassis 1.710.120

Das gesamte Laufwerk ist als ein in sich stabiler Block aufgebaut, welcher mit nur vier Schrauben federnd im Gerätekassis aufgehängt ist. Sämtliche elektrischen Verbindungen sind auf vier Stecker zusammengefasst:

- Steuersignale für beide Tonmotoren
- Ansteuerung für beide Wickelmotoren und die Zugmagneten
- Sämtliche Signale der Sensorelemente zum Mikroprozessor wie Bandendschalter, Tachosignale beider Wickelmotoren, 2 Kassettenfühler für die Bandsortenerkennung sowie je einen für die Aufnahmesperre und für die Kontrolle, ob eine Kassette eingelegt ist.

Die NF-Signale von und zu den Tonköpfen sind durch abgeschirmte Leitungen mit der Verstärkerlektronik verbunden.

4.6 Tape drive chassis 1.710.120

The complete tape transport is constructed as a rigid block which is resiliently suspended in the transport chassis by four screws only. All electrical interconnections are grouped into four connectors:

- Control signals for the two capstan motors
- Control of the two spooling motors and the tension magnets
- All signals from the sensor elements to the microprocessor such as end-of-tape sensor, tacho signals of the two spooling motors, 2 cassette feeler pins for decoding the tape type as well as for the record protection, and for checking the presence of a cassette.

The audio signals from and to the soundheads are connected via screened lines to the amplifier electronics.

4.6 Mécanisme transport de bande 1.710.120

L'ensemble du mécanisme constitue un bloc stable, suspendu au chassis de l'appareil par quatre vis. Les liaisons électriques sont regroupées sur quatre connecteurs:

- Signaux de commande pour les deux moteurs de cabestan
- Commande des deux moteurs de bobinage et des électro-aimants
- Tous les signaux issus des capteurs vers le microprocesseur comme le commutateur de fin de bande, les signaux tachymétriques des deux moteurs de bobinage, 2 palpeurs de cassette pour la détermination du type de bande ainsi qu'un pour contrôler la présence de la cassette.

Les signaux BF entrées/sorties des têtes sont reliés à leurs amplificateurs par des liaisons blindées.

4.7 Interconnection PCB 1.710.471/473

Die Basisplatine enthält die aktiven Schaltkreise Wiedergabe-Entzerrer Verstärker mit IC1 für die NF-Stummschaltung für das Signal über Band. Außerdem stellt diese Platine sämtliche Verbindungen zwischen der Verstärker-Elektronik und deren Speisespannungen her. Weiter werden auf der Basisplatine noch die von verschiedenen Bedienungselementen kommenden Signale logisch verknüpft oder dekodiert.

4.7 Interconnection PCB 1.710.473

The master board contains the active circuits of the reproduce equalization amplifier with IC1 for the audio muting of the signal with tape present. This board also establishes all connections between the amplifier electronics and the latter's supply voltages. In addition, the signals arriving from various operator controls are logically interconnected and decoded on this board.

4.7 Circuit d'interconnection PCB 1.710.473

La platine de base contient les circuits actifs de correction à la lecture avec IC1 pour le muting du signal sur bande. De plus, cette platine réalise toutes les connexions entre les amplificateurs et leurs tensions d'alimentation. Enfin, c'est sur cette platine de base que sont rassemblés ou décodés les signaux provenant des divers organes de commande.

4.8 Oszillator 1.710.480.81

Ein LC-Oszillator (T1, C5 und C6) erzeugt die HF-Spannung für Löschkopf und Vormagnetisierung. Mit dem Spulenkern kann die Nennfrequenz von 105 kHz eingestellt werden. Der weiche Einschwingvorgang wird über Q2 durch das Signal Y-REC freigegeben. Dieses Signal wird nur bei eingelegter, aufnahmefähiger Kassette durchgeschaltet.

Die NF-Signale werden durch IC2 über T2 resp. T3 auf den Aufnahmekopf durchgeschaltet. Diesem wird ein gemäss der gewählten Bandsorte entsprechender Vormagnetisierungsstrom überlagert. Der Vormagnetisierungsstrom kann mit R37 bis R42 eingestellt werden und wird über die primärseitig an Masse gelegten Übertrager auf den Aufnahmekopf geführt. Die Bandsortenumschaltung erfolgt je Kanal gemeinsam über Q8 (IEC1), Q7 (IEC2) und Q6 (IEC4). IC1 dekodiert die Steuersignale für die Bandsortenwahl.

4.9 Record Equalizer 1.710.486

Dem über den Dolby-Encoder geführten NF-Signal werden die Höhen der gewählten Bandsorte entsprechend angehoben und der Pegel angepasst. Das Netzwerk R6, C7, R11 resp. R5, C6, R9 bewirkt eine generelle Anhebung der hohen Frequenzen. IC3 ist als umschaltbarer Entzerrer geschaltet. Mit den Trimmpotentiometern R45 bis R50 kann die Höhenanhebung beeinflusst werden. Die zweite Stufe von IC3 kompensiert den normbedingten Bassabfall bei der Wiedergabe-Entzerrung ($3180\mu s$) und erlaubt zudem eine niederohmige Signalauskopplung auf die Trimmpotentiometer R39 bis R44. IC6 wirkt als Impedanzwandler auf die nächste Stufe und erzeugt, für beide Kanäle getrennt, die halbe Speisespannung als NF-Masse. Zur Kompenstation von Schichtdickenverlusten des Bandes bei $70\mu s$ Entzerrung (IEC2 und IEC4), wird durch das Netzwerk R22, R18, C13 resp. R19, R13, C10 eine Flachanhebung bewirkt.

4.8 Oscillator 1.710.480.81

An LC oscillator (T1, C5, and C6) generates the RF voltage for the erase head and the bias. The nominal frequency of 150 kHz can be adjusted with the trimmer slug. The soft buildup is enabled via Q2 by the Y-REC signal. This signal is only through-connected if a recordable cassette has been inserted.

The audio signals are connected through by IC2 via T2 or T3 respectively by superimposing a bias current that corresponds to the selected tape type. The bias current can be adjusted with R37 through R42 and is taken to the record head by the transformers, the primary side of which is connected to ground. The tape bias for the two channels is switched over concurrently via Q8 (IEC1), Q7 (IEC2), and Q6 (IEC4). IC1 decodes the control signals for tape bias selection.

4.9 Record equalizer 1.710.486

The treble frequencies of the audio signals processed by the Dolby encoder are pre-emphasized as a function of the selected tape type and the level is matched. The network R6, C7, R11 or R5, C6, R9 respectively causes a general pre-emphasis of the treble frequencies. The equalizer implemented by IC3 can be changed over. The treble pre-emphasis can be adjusted with trimmer potentiometers R45 through R50. The second stage of IC3 compensates the inherent bass loss during the reproduce equalization ($3180\mu s$) and also enables low-impedance decoupling to the trimmer potentiometers R39 through R44. IC6 functions as an impedance converter for the next stage and generates 50% of the supply voltage as AF ground. For compensating the film thickness losses of tapes with $70\mu s$ equalization (IEC2 and IEC4, the network R22, R18, C13 or R19, R13, C10 produces a flat boost.

4.8 Oscillateur 1.710.480.81

Un oscillateur LC (T1, C5 et C6) produit la tension HF pour la tête d'effacement et la prémag- netisation. On peut régler la fréquence nominale sur 105 kHz grâce au noyau de la bobine. Le signal de commande Y-REC autorise par Q2 l'établissement de l'oscillation. Ce signal ne sera produit que si on a introduit une cassette desti- née à être enregistrée.

Les signaux BF sont commutés par IC2, passent par T2 (resp. T3) et vont sur la tête d'enregistrement. On y ajoute un courant de prémag- netisation défini par le type de la bande. Le courant de prémag- netisation peut être ajusté par R37 à R42. Il est conduit à la tête d'enregistrement par un transformateur dont le primaire est relié à la masse. La sélection du type de bande est produite, pour chaque canal, par Q1 (IEC1), Q7 (IEC2) et Q6 (IEC4). IC1 décode les signaux de commande pour la sélection du type de bande.

4.9 Egaliseur d'enregistrement 1.710.486

On relève, selon le type de bande, le niveau des aigus des signaux BF issus de l'encodeur Dolby et on ajuste les niveaux. Le réseau R6, C7, R11 (resp. R5, C6, R9) provoque une accentuation globale des hautes fréquences. IC3 est un correcteur commutable. Les trimmers R45 à R50 permettent de régler l'accentuation des aigus. Le deuxième étage de IC3 compense la désaccentuation des graves selon la norme ($3180\mu s$) et autorise une liaison à basse impédance aux trimmers R39 à R44. IC6 est un convertisseur d'impédance et transforme, séparément pour chaque canal, la demi-tension d'alimentation en masse BF. Pour compenser les pertes dues à l'épaisseur de la bande lors de la correction $70\mu s$ (IEC2 et IEC4), on relève le niveau par le réseau R22, R18 et C13 (resp. R19, R13 et C10).

4.10 Dolby-C Encoder 1.710.488/489

Die Geräuschunterdrückungsschaltung kann wahlweise auf Betrieb mit Dolby-B oder Dolby-C umgeschaltet werden. Die gesamte Schaltung basiert auf dem IC HA 12038 und externer Be- schaltung.

Durch unterschiedliche DC-Spannungen wird mit einem Signal (Y-NR) der Umschaltvorgang NR OFF/B oder C gesteuert.

Die Eingangssignale LINE und MIC werden passiv gemischt und auf ein dem Dolby-Prozessor vorgesetztes Multiplexfilter geführt. Dieses unterdrückt mit einer Dämpfung von min. 30 dB bei 19 kHz hochfrequente Signale, welche das Regelsystem des Encoders falsch beeinflussen könnten. Mit R14 kann eine unterschiedliche Kanalverstärkung ausgeglichen werden (Einstellen auf: LINE OUT L = LINE OUT R). An den Ausgängen liegen die Signale Y-EQIN (über den Encoder geführtes Signal für den Entzerrer) und Y-SRC (unbearbeitet für den Monitor-Kanal) an.

4.11 Dolby-C Decoder 1.710.492

Analog zur Verschaltung im Encoder wird das vom Wiedergabeverstärker kommende Signal Y-TAPE wieder dekodiert. Die Verstärkerstufe IC2 wird wahlweise mit dem Quellsignal Y-SRC oder dem im Prozessor dekodierten Signal gespeist. Die Umschaltung erfolgt durch IC3 resp. IC1, welches über Q1 (Signal S-MON) angesteuert wird. Der Ausgang liefert ein niederohmiges Signal, welches auf die Ausgangsbuchsen und auf die Kopfhörer-Endstufe geführt wird.

4.12 Mic/Phones Amplifier 1.710.350/351

Auf diesem Print sind sowohl die Mikrofon-Ein- gangsverstärker als auch die Kopfhörer-Endstufe aufgebaut. Das Stummschaltrelais K1 (vier Kontaktpaare) vermeidet Knackgeräusche bei Ein- und Ausschalten des Gerätes und wirkt auf den LINE- als auch auf den PHONES-Ausgang.

4.13 Peak Meter Electronics 1.710.361

Das LINE-Ausgangs-Signal wird auch auf die Aussteuerungsanzeige geführt. In einer aktiven Gleichrichterschaltung wird der Spitzenwert ermittelt (IC8 und IC9) und den Ladekondensatoren (C2 und C3) zugeführt. Der Wert wird hochohmig abgetastet (über FET's Q4 und Q5) und abwechselnd einer Komparatorkette zugeführt, deren Ausgänge die einzelnen Segmente der Leuchtbalken-Anzeige 1.710.356 ansteuern. Eine eng tolerierte Widerstandskette (R9 bis R31) gewährleistet die Abstufungsgenauigkeit.

Da für beide Kanäle nur 24 Komparatoren zur Verfügung stehen, wird die Stromzufuhr für je einen Kanal synchron zur Umschaltung des Anzeigewertes umgeschaltet (Duplex-Betrieb).

4.10 Dolby-C encoder 1.710.489

The noise reduction circuit can be selectively operated in Dolby-B or Dolby-C mode. The entire circuit is implemented by the IC HA 12038 and external circuits.

The change-over NR OFF/B or C is controlled with a signal (Y-NR) with the aid of different DC voltages.

The input signals LINE and MIC are mixed passively and taken to a multiplex filter connected to the input of the Dolby processor. This filter suppresses high-frequency signals by at least 30 dB at 19 kHz which could possibly have an adverse effect on the control system of the encoder. An imbalanced channel gain can be corrected with R14 (set to: LINE OUT L = LINE OUT R). The signals Y-EQIN (a signal for the equalizer that is taken via the encoder) and Y-SRC (unprocessed for the monitor channel) are available at the outputs.

4.11 Dolby-C encoder 1.710.492

Analogous to the circuit in the encoder, the signal Y-TAPE arriving from the reproduce amplifier is decoded. The amplifier stage IC2 is selectively supplied with the source signal Y-SRC or the signal decoded in the processor. The change-over is effected with IC3 or IC1 which are controlled via Q1 (signal S-MON). The output supplies a low-impedance signal that is taken to the output sockets and to the headphones amplifier stage.

4.12 Mic/Phones amplifier 1.710.350/351

The microphone input amplifiers as well as the headphones output stage are implemented on this circuit board. The muting relay K1 (4 contact pairs) prevents clicks when the recorder is switched on or off. It acts on the LINE as well as the PHONES output.

4.13 Peak meter electronics 1.710.361

The LINE output signal is also taken to the VU meter. The peak value is determined in an active demodulation circuit (IC8 and IC9) and taken to the input capacitors (C2 and C3). The value is sampled with high impedance (via FETs Q4 and Q5) and alternately taken to a comparator ladder network, the outputs of which drive the individual segments of the bargraph display 1.710.356. A close-tolerance resistor network (R9 through R31) ensures the necessary gradation accuracy.

Since only 24 comparators are available for the two channels, the current for one channel each is changed over concurrently with the change-over of the display value (duplex mode).

4.10 Encodeur Dolby-C 1.710.489

Le circuit réducteur de bruit peut être commuté soit en Dolby-B, soit en Dolby-C. Le circuit est basé sur l'IC HA 12038 et des circuits annexes. Selon diverses tensions continues, la sélection NR OFF/B ou C est commandée par un signal Y-NR.

Les signaux d'entrée LINE et MIC sont mélangés passivement et conduits à un filtre multiplex commuté par le processeur Dolby. Il atténue d'au moins 30 dB à 19 kHz les signaux haute fréquence qui pourraient perturber l'asservissement de l'encodeur. On peut ajuster l'amplification des deux canaux (ajuster à: LINE OUT L = LINE OUT R). Aux sorties sont joints les signaux Y-EQIN (signal du décodeur vers le correcteur) et Y-SRC (non traité pour le monitoring).

4.11 Décodeur Dolby-C 1.710.492

Le signal issu de l'amplificateur de lecture Y-TAPE est décodé par un procédé analogue à celui de l'encodeur. L'étage amplificateur IC2 est alimenté soit par le signal source Y-SRC, soit par le signal décodé par le processeur. La commutation est effectuée par IC3 (resp. IC1), lequel est commandé par Q1 (signal S-MON). La sortie délivre un signal basse impédance qui est conduit aux bornes de sortie et à l'amplificateur de casque.

4.12 Amplificateur Mic/Phones 1.710.350/351

Les amplificateurs d'entrée micro et l'étage de puissance casque sont montés sur ce circuit. Le relais de muting K1 (4 paires de contacts) évite les bruits de commutation à la mise en/hors service de l'appareil et agit sur les sorties ligne et casque.

4.13 Circuit du Peak-Meter 1.710.361

Le signal de sortie ligne est mené à l'indicateur de modulation. Un circuit redresseur acif (IC8 et IC9) détermine la valeur de crête et celle-ci charge les condensateurs C2 et C3. La valeur de la tension est échantillonnée à haute impédance (par les FETs Q4 et Q5) et conduite alternativement à une échelle de comparateurs dont les sorties commandent chaque segment du bargraph 1.710.356. La série de résistances de tolérances serrées (R9 à R31) garantit une gradation précise.

Comme il n'y a que 24 comparateurs pour les deux canaux, l'alimentation en courant pour chaque canal est commutée de façon synchronie à la commutation des valeurs à afficher (mode duplex).

5. AUDIOEINSTELLUNGEN

(Voraussetzung für diese Einstellungen ist ein optimal eingestelltes Laufwerk)

5.1 Messgeräte und Hilfsmittel

NF-Generator $R_i < 600 \text{ Ohm}$
 NF-Millivoltmeter (0,3 mV-30 V,
 $R_i > 100 \text{ kOhm}$)
 Oszilloskop
 Digitalzähler (Bereich bis 10 MHz)
 DC-Universalinstrument (min. 20 kOhm/V)
 Entmagnetisierungsdrossel
 Bandpassfilter 1 kHz bzw. 1,5 kHz
 Verlängerungsprint 1.710.495
 Schraubendreher Grösse 0 und 00
 Kreuzschlitzschraubendreher Grösse 00
 Bezugskassette 4,75 (Fe)

5.2 Kontrollen

(Bei relativen Pegelangaben gilt: 0 dBu am Peak Meter entsprechen 200 nWb/m = Dolby-Pegel / 580 mV an TP1 auf Dolby Encoder = 0,775 V an Line Output.)

5. AUDIO ADJUSTMENTS

(A suitably adjusted tape transport is a prerequisite for all audio adjustments.)

5.1 Measuring instruments and aids

AF generator $R_i < 600 \text{ ohms}$
 Audio millivoltmeter (0.3 mV – 30 V,
 $R_i > 100 \text{ kohms}$)
 Oscilloscope
 Digital frequency counter (range up to 10 MHz)
 DC multimeter (min. 20 kohm/V)
 Head demagnetizer
 Band-pass filter 1 kHz and 1.5 kHz respectively
 Extension board 1.710.495
 Screwdrivers size 0 and 00
 Screwdriver for cross recessed head screws size 00
 Hi-Fi reference tape cassette 4.75 (Fe)

5.2 Checks

(The following applies to specifications with relatively high levels: 0 dBu on peak meter corresponds to 200 nWb/m = Dolby level / 580 mV at TP1 on Dolby encoder = 0.775 V at line output.)

5. REGLAGES AUDIO

(Ces réglages n'ont de sens que si un réglage préalable du mécanisme a été effectué. Pour toutes les mesures, les sorties lignes sont chargées par 600 Ohm)

5.1 Appareils de mesure et accessoires

Générateur BF $R_i < 600 \text{ Ohm}$
 Millivoltmètre BF (0,3 mV-30 V,
 $R_i > 100 \text{ kOhm}$)
 Oscilloscope
 Fréquencemètre digital (10 MHz au moins)
 Multimètre CC (min. 20 kOhm/V)
 Démagnétiseur
 Filtre passe-bande 1 kHz ou 1,5 kHz
 Circuit imprimé de prolongation 1.710.495
 Tournevis taille 0 et 00
 Tournevis cruciforme taille 00
 Cassette étalon 4.75 (Fe)

5.2 Contrôles

Pour les données en niveaux relatifs, on a: 0 dBu au Peak-mètre correspondent à 200 nWb/m = niveau Dolby / 580 mV au Dolby Encoder = 0,775V aux sorties ligne

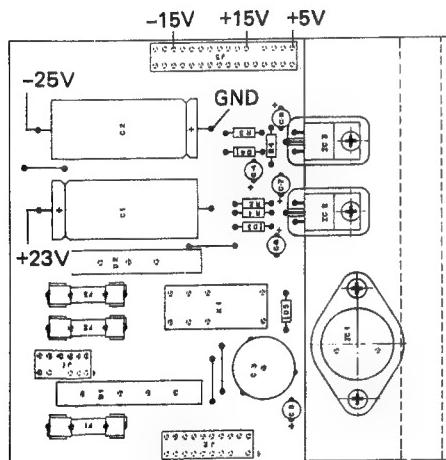


Fig. 5.1

5.2.1 Kontrolle der Speisespannungen (DC)

Die Messpunkte sind aus Fig. 5.1 ersichtlich.
 Stabilisierte Spannungen:

+ 15 V +/- 0,75 V
 - 15 V +/- 0,75 V
 + 5 V +/- 0,25 V

unstabilisierte Spannungen (in Stopp-Position des Gerätes):

+ 23 V
 - 23 V

5.2.1 Checking the supply voltage (DC)

The test points are shown in Fig. 5.1.
 Stabilized voltages:

+ 15 V ± 0,75 V
 - 15 V ± 0,75 V
 + 5 V ± 0,25 V

unstabilized voltages (with recorder in stop mode):

+ 23 V
 - 23 V

5.2.1 Contrôle des tensions d'alimentation (DC)

La figure 5.1 donne les différents points de mesure.

Tensions stabilisées:

+ 15 V ± 0,75 V
 - 15 V ± 0,75 V
 + 5 V ± 0,25 V

tensions non stabilisées (mesurées en position STOP de l'appareil)

+ 23 V
 - 23 V

5.2.2 Kontrolle des Signalweges "vor Band"

- Beide Regler OUTPUT LEVEL (Geräte-Rückseite) im Uhrzeigersinn in den Anschlag drehen.
- Regler INPUT LEVEL (Gerätefront) im Uhrzeigersinn in den Anschlag drehen, Regler MIC INPUT LEVEL im Gegenuhrzeigersinn in den Anschlag drehen.
- Schalter DOLBY NR und Schalter MPX-FILTER auf OFF stellen.
- Schalter MONITOR auf SOURCE stellen.
- An beiden Eingängen LINE INPUT 70 mV, 315 Hz einspeisen.
- Den Generatorpegel verändern, bis am linken Ausgang 0,775 V anstehen. Mit dem Trimmsteller CHANNEL BALANCE (Fig. 5.3) den rechten Kanal auf den gleichen Pegel einstellen.

Achtung:

Diese Einstellung muss für die nachfolgenden Messungen gleich bleiben. Nach dieser Einstellung muss der Frequenzgang kontrolliert werden. Er darf von 30 Hz bis 20 kHz die Toleranz von ± 1 dB nicht überschreiten.

5.2.2 Checking the signal path "without tape"

- Turn both OUTPUT LEVEL controls (rear panel) to clockwise limit position.
- Turn INPUT LEVEL control (front panel) to clockwise limit position and MIC INPUT LEVEL control to counterclockwise limit position.
- Set DOLBY NR switch and MPX-FILTER switch to OFF position.
- Set MONITOR switch to SOURCE position.
- Feed 70 mV, 315 Hz into both LINE INPUTS.
- Vary generator level until 0.775 V is available at the left-hand output. Adjust right-hand channel to identical level with the aid of CHANNEL BALANCE trimmer potentiometer (Fig. 5.3).

Caution:

This setting must be retained for the subsequent measurements. After the above adjustment has been made, check the frequency response. Within the range of 30 Hz to 20 kHz it should not vary by more than ± 1 dB.

5.2.2 Contrôle du cheminement "avant-bande" du signal

- Placez les deux potentiomètres OUTPUT LEVEL en butée en les tournant dans le sens des aiguilles d'une montre.
- Placez INPUT LEVEL (face avant) en butée dans le sens des aiguilles d'une montre et MIC INPUT LEVEL en butée également, mais dans le sens contraire.
- Commutez DOLBY NR et MPX-FILTER sur OFF.
- Placez le commutateur MONITOR sur SOURCE.
- Injectez une tension de 70 mV, 315 Hz, aux deux entrées LINE INPUT.
- Ajustez le niveau du générateur jusqu'à ce que la sortie gauche délivre 0,775 V. Réglez le canal droit au même niveau grâce au trémie CHANNEL BALANCE (fig. 5.3).

Attention:

Ce réglage ne doit pas être modifié lors des ajustements suivants. Après ce réglage, contrôlez la réponse amplitude-fréquence. Elle ne doit pas dépasser la tolérance de ± 1 dB entre 30 Hz et 20 kHz.

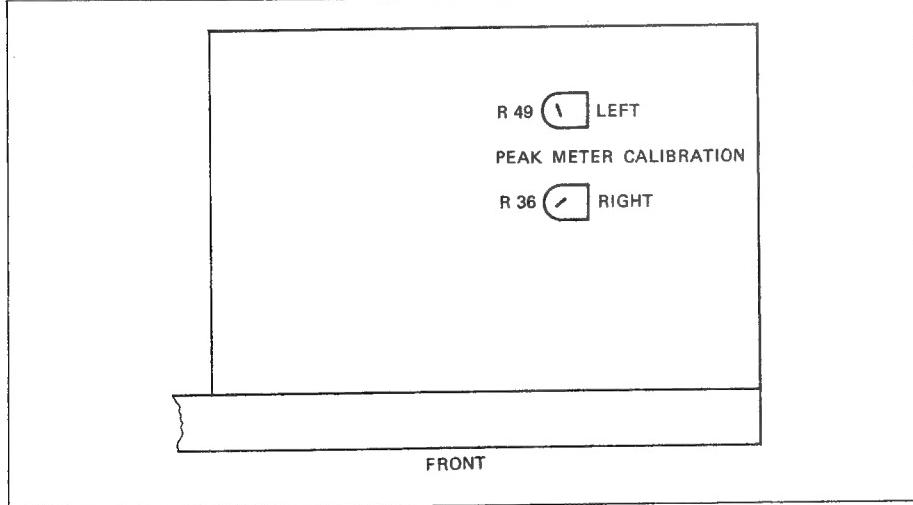


Fig. 5.2

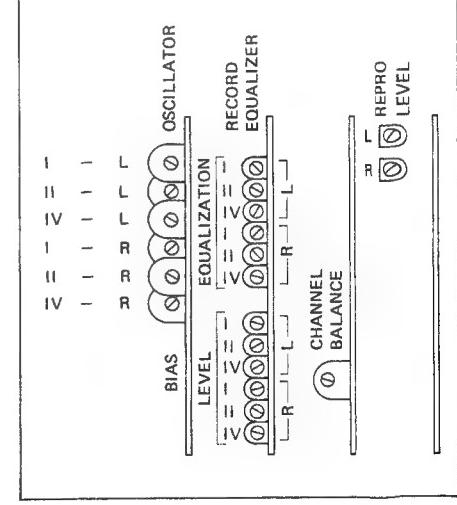


Fig. 5.3

5.2.3 Kontrolle und Eichen des PEAK READING METERS

Kontrolle:

- An LINE INPUT 70 mV, 315 Hz einspielen.
- Den Generatorpegel im Bereich 0 bis $-0,5$ dB variieren.
- Beide Segmente links der Dolby-Marke (0 dB) müssen gleichzeitig aufleuchten bzw. verlöschen. Ist dies nicht der Fall, muss die Anzeige neu geeicht werden.

5.2.3 Checking and calibrating the PEAK READING METER

Checks:

- Feed in 315 Hz 70 mV at LINE INPUT.
- Vary the generator level within the range 0 to $-0,5$ dB.
- Both segments to the left of the Dolby marker (0 dB) must turn on or off simultaneously. Should this not be the case, the display requires recalibration.

5.2.3 Contrôle et étalonnage du PEAK METER DISPLAY

Contrôle:

- Injectez sur LINE INPUT 70mV, 315Hz
- Faites varier le niveau du générateur dans une plage de 0 à $-0,5$ dB.
- Les deux segments situés à gauche du symbole DOLBY (0 dB) doivent s'allumer ou s'éteindre simultanément, sinon il y a lieu de réétalonner l'affichage.

Eichen:

- An LINE INPUT 70 mV, 315 Hz einspielen (an LINE OUTPUT sollten 0,775 V/0 dB anstehen).
- Trimmopotentiometer PEAK METER CALIBRATION (Fig. 5.2) für beide Kanäle so einstellen, dass die beiden Segmente links der Dolby-Marke (0 dB) gerade noch aufleuchten.
- Kontrolle wie vorgängig beschrieben wiederholen.

Calibration:

- Feed in line level 70mV, 315Hz at LINE INPUT (corresponds to 0.775V/0dB at LINE OUTPUT).
- Adjust trimmer potentiometer PEAK METER CALIBRATION (Fig. 5.2) of both channels in such a manner that the two segments to the left of the Dolby marker (0 dB) just light up.
- Recheck as described above.

Etalonnage:

- Injectez une tension de 70mV, 315Hz sur LINE INPUT (correspond à 0,775V/0dB au LINE OUTPUT).
- Ajustez le trimmer PEAK METER CALIBRATION (fig. 5.3) pour les deux canaux de façon à ce que les deux segments situés à gauche du symbole DOLBY (0 dB) s'allument à peine.
- Répétez le contrôle comme décrit ci-dessus.

5.2.4 Kontrolle und Abgleich der MPX-Filter

- An LINE INPUT 19 kHz ± 20 Hz, ca. 70 mV einspeisen.
- Schalter DOLBY NR und MPX-FILTER auf ON stellen.
- Die Ausgangsspannung muss um -30 dB auf < 24 mV absinken.
Ist dies nicht der Fall, müssen die Filter neu abgeglichen werden.

Abgleich:

- Gerät ausschalten und den Dolby C Encoder-Print 1.710.488/489 über den Verlängerungsprint 1.710.495 führen, danach das Gerät wieder einschalten.
- Die Abgleichkerne der Spulen L2 (L3) und L4 auf maximale Dämpfung einstellen (min. 30 dB).
- Kontrolle wiederholen.

5.2.4 Checking and adjusting the MPX filters

- Feed in 19 kHz ± 20 Hz approx. 70 mV at LINE INPUT.
- Set DOLBY-NR and MPX-FILTER switches to ON position.
- The output voltage should drop by at least -30 dB.
Should this not be the case, the filters require readjustment.

Adjustment:

- Switch recorder off and reconnect the Dolby-C encoder 1.710.488/489 via the extension board 1.710.495. Switch recorder on again.
- Adjust trimmer slugs of coils L2 (L3) and L4 to maximum attenuation (min. 30 dB).
- Repeat checking steps.

5.2.4 Contrôle et alignement des filtres MPX

- Injectez un niveau ligne à 19 kHz ± 20 Hz sur LINE INPUT.
- Placez les commutateurs DOLBY NR et MPX-FILTER sur ON.
- La tension de sortie doit être inférieure d'au moins 30 dB. Si ce n'est pas le cas, il faut réaligner les filtres.

Alignment:

- Débranchez l'appareil, insérez le circuit imprimé prolongateur 1.710.495 entre l'encodeur Dolby-C 1.710.489 et son logement puis rebranchez l'appareil.
- Réglez les noyaux d'alignement des bobines L2 (L3) et L4 pour un amortissement maximal.
- Répétez le contrôle.

**5.2.5 Fremd- und Geräuschspannungsabstand "vor Band" kontrollieren
bezogen auf 200 nWb/m**

- Schalter DOLBY NR auf OFF stellen.
- Regler INPUT LEVEL LINE im Uhrzeigersinn in den Anschlag drehen.
- Regler INPUT LEVEL MIC im Gegen- uhrzeigersinn in den Anschlag drehen.
- Die Leitungseingänge kurzschließen.

Der Fremdspannungsabstand muss mindestens 73 dB (79 dB), der Geräuschspannungsabstand (A-Kurve) mindestens 76 dB (82 dB) betragen. Diese Werte beziehen sich auf die Bestückung 1.710.350/488, Werte in Klammern auf die Bestückung mit 1.710.351/489.

5.2.5 Checking the signal-to-noise ratio "without tape"

relative to 200 nWb/m

- Set DOLBY NR switch to OFF position.
- Turn INPUT LEVEL LINE control to clockwise limit position.
- Set INPUT LEVEL MIC control to counterclockwise limit position.
- Short-circuit line inputs.

The unweighted SN ratio should measure at least 73 dB (79 dB), the weighted SN ratio (curve A) at least 76 dB (82 dB). These values apply to recorders equipped with the assemblies 1.710.350/488, those in brackets to recorders equipped with the assemblies 1.710.351/489.

5.2.5 Contrôle du rapport signal / bruit "avant bande"

référé à 200 nWb/m

- DOLBY NR placé sur OFF.
- Amenez INPUT LEVEL LINE en butée dans le sens des aiguilles d'une montre.
- Amenez INPUT LEVEL MIC en butée en le tournant en sens inverse.
- Court-circuitez les entrées ligne.

Le recul du bruit doit être d'au moins 73 dB (79 dB), le rapport signal/bruit (courbe A) d'au moins 76 dB (82 dB). Ces valeurs se rapportent au circuit 1.710.350/488, celles entre parenthèses au circuit 1.710.351/489.

5.3 Messungen und Einstellungen "über Band"

In diesem Abschnitt wird eine Bezugskassette 4,75 benötigt. Es ist von Vorteil, diese auf dem Gerät einmal vollständig umzuspielen.

Für die folgenden Einstellarbeiten ist die Laufwerkabdeckung auszubauen.

5.3 Measurements and adjustments with tape

A 4.75 reference cassette is required for these adjustments. Spool the cassette forward and backward twice on the recorder to be adjusted. The tape transport cover must be removed for these adjustments.

5.3.1 Einstellen des Wiedergabepegels

- Bandberührende Metallteile bei ausgeschaltetem Gerät sorgfältig entmagnetisieren und reinigen.
- Hi-Fi Bezugskassette 4,75 (Fe) einlegen.
- Schalter MONITOR auf TAPE stellen und die Drucktaste TAPE SELECTOR IEC1 drücken.
- Schalter DOLBY NR auf OFF stellen.
- Kassette im Pegeltonteil 250 nWb/m, 315 Hz auf Wiedergabe (PLAY) starten.
- Wiedergabepegel mit den Trimmopotentiometern REPRO LEVEL L und R so einstellen, dass am LINE OUTPUT +2 dBu (0,97 V) ansteht (Fig. 5.3).

5.3.1 Adjusting the reproduce level

- Carefully demagnetize and clean all metal parts that come in contact with the tape.
- Mount Hi-Fi reference cassette 4.75 (Fe).
- Set MONITOR switch to TAPE position and press TAPE SELECTOR IEC1.
- Set DOLBY NR switch to OFF position.
- Start reference cassette, level tone section 250 nWb/m, 315 Hz, in PLAY mode.
- Adjust reproduce level with trimmer potentiometers REPRO LEVEL L and R in such a manner that +2 dBu (0.97) V is available at the LINE OUTPUT (Fig. 5.3).

5.3.2 Azimut des Wiedergabekopfes einstellen

- Laufwerkabdeckung abnehmen.
- Bezugskassette im Abschnitt "Spalteinstellung 10 kHz" auf Wiedergabe starten.
- Die Ausgangsspannung am LINE OUTPUT muss ca. -9 dBu betragen.
- Mit Schraube X (Fig. 5.4) den Ausgangspegel beider Kanäle auf maximale Ausgangsspannung einstellen.
- (Für diese Einstellung kann auch ein Phasenmeter verwendet werden, dabei wird auf minimalen Phasenfehler abgeglichen.)

5.3.2 Adjusting the azimuth of the reproduce head

- Remove tape transport cover.
- Start reference cassette, azimuth alignment 10 kHz section in PLAY mode.
- The output voltage at the LINE OUTPUT must be approximately -9 dBu.
- With screw X (Fig. 5.4), adjust the output level of the two channels for maximum output voltage.
- (A phase meter can also be used for these adjustments. In this case adjust for minimum phase error.)

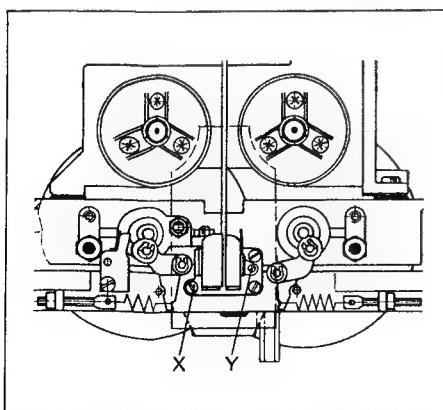


Fig. 5.4

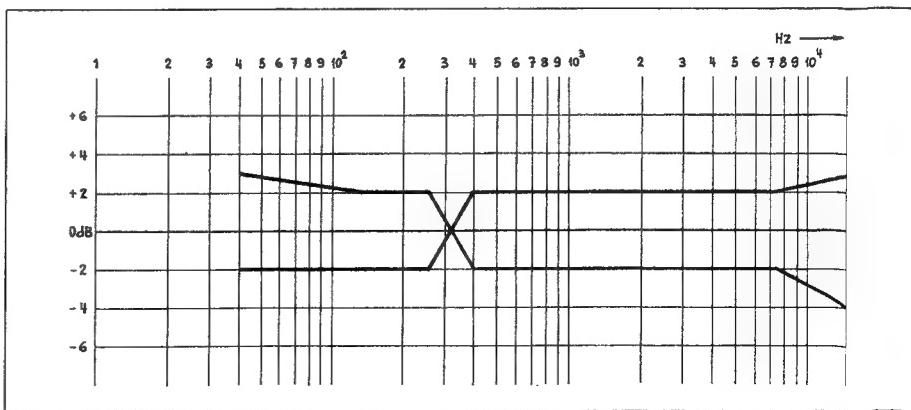


Fig. 5.5

5.3 Mesures et réglages "après bande"

Pour ces réglages, on utilisera la cassette étalon 4,75 (Fe). Cette cassette doit auparavant défilé entièrement et être rebobinée par l'appareil. De plus, on retirera le capot du mécanisme.

5.3.1 Réglage du niveau de lecture

- Démagnétisez et nettoyez soigneusement les parties métalliques en contact avec la bande.
- Introduisez la cassette étalon 4,75 (Fe).
- Placez le commutateur MONITOR sur TAPE et appuyez sur la touche TAPE SELECTOR IEC I.
- Placez le commutateur DOLBY NR sur OFF.
- Lisez la plage de référence 250 nWb/m, 315 Hz de la cassette.
- Réglez le niveau de lecture avec les trimmer REPRO LEVEL L et R pour que la sortie LINE OUTPUT délivre +2 dBu (0,97V) (fig. 5.3).

5.3.2 Réglage de l'azimut de la tête de lecture

- Déposez le couvercle du mécanisme.
- Lisez la plage "Réglage par crevasse 10 kHz" de la cassette étalon.
- La tension de sortie LINE OUTPUT doit être 10 dB sous le niveau ligne.
- Réglez à sa valeur maximale le niveau de sortie des deux canaux grâce à la vis X (fig.5.4). (Pour effectuer ce réglage, on peut se servir d'un phase-mètre et régler à l'erreur de phase minimale.)

5.3.3 Kontrolle der Schalter TAPE SELECTOR

- Umschalten der Drucktasten TAPE SELECTOR von IEC1 auf AUTO darf keinen Pegelsprung verursachen (bei 10 kHz prüfen).

Abschliessend sollte der Wiedergabepegel überprüft und ggf nachgestellt werden.

5.3.3 Checking the TAPE SELECTOR switch

- When the TAPE SELECTOR buttons are changed over from IEC1 to AUTO, no level jump should occur (check with 10 kHz).

After these adjustments check the reproduce level and readjust if necessary.

5.3.3 Contrôle du commutateur TAPE SELECTOR

- Une commutation du TAPE SELECTOR de IEC1 à AUTO ne doit pas provoquer de saut de niveau (essai à 10 kHz).

A l'issue de réglage, on mesurera le niveau du signal de lecture pour le réajuster le cas échéant.

5.3.4 Kontrolle des Wiedergabefrequenzgangs

- Bezugskassette im Abschnitt "Frequenzgang" auf Wiedergabe starten.
- Der Sollfrequenzgang bei einwandfreier Bezugskassette muss innerhalb der in Fig. 5.5 eingezeichneten Toleranz-Zone liegen.

Die gleiche Kontrolle muss auch mit den Bezugs-kassetten IEC2 (Cr O₂) 70 µs durchgeführt werden.

5.3.4 Checking the reproduce frequency response

- Start frequency response section of reference cassette in PLAY mode.
- With an immaculate reference cassette, the nominal frequency must be within the tolerance zone illustrated in Fig. 5.5.

The same check must also be performed with the 70 µs IECII reference cassettes.

5.3.4 Contrôle de la courbe de réponse lecture

- Lisez la plage "réponse en fréquence" de la cassette étalon.
- La courbe de réponse en fréquence, pour une cassette étalon en bon état doit tenir dans le gabarit de la figure 5.5.

Le même contrôle doit être effectué avec la cassette étalon DIN 70 µs.

5.4 Aufnahmeeinstellungen mit Kassetten gemäss IEC1, IEC2 und IEC4

5.4.1 Kontrolle der Oszillatorfrequenz

MK1 Geräte: Gerät ausschalten, Oszillatorsteck-karte 1.710.480 ausziehen und über den Verlän-gerungsprint wieder einsetzen.

- Gerät einschalten, Kassette einlegen und einmal umspulen.
- Tasten REC und PAUSE drücken.
- Digitalzähler an Punkt A (Fig. 5.6) anschliessen.
- Die Frequenz muss 105 kHz ± 1 kHz betragen. Falls die Abweichung grösser ist, kann dies mit dem Spulenkern von T1 (Fig.5.6, Punkt B) korrigiert werden.

5.4 Record adjustments with cassettes conforming to IEC1, IEC2 and IEC4

MK1 recorders: switch recorder off and reconnect oscillator PCB 1.710.480 via the extension board.

- Load cassette and spool forward and backward once.
- Press REC and PAUSE keys.
- Connect digital counter to point A (Fig. 5.6).
- The frequency must measure 105 kHz ± 1 kHz. If the deviation is larger, this can be corrected with the trimmer slug of T1 (Fig. 5.6, point B).

5.4 Réglages de l'enregistrement avec les cassettes IEC1, IEC2 et IEC4

5.4.1 Contrôle de la fréquence de l'oscillateur

Versions MKI: Débranchez l'appareil, insérez le circuit imprimé prolongateur entre l'oscillateur 1.710.480 et son logement.

- Introduisez une cassette, faites la défiler entièrement et rebobinez-la.
- Appuyez sur les touches REC et PAUSE.
- Raccordez le fréquencemètre digital au point A (fig. 5.6).
- La fréquence doit être de 105 kHz ± 1 kHz. Si l'écart est plus grand, il peut être corrigé en agissant sur le noyau de T1 (fig.5.6 point B).

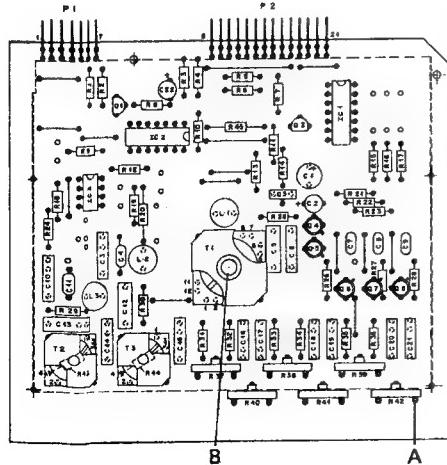


Fig. 5.6

5.4.2 Azimut des Aufnahmekopfes einstellen

Achtung:

Für diese Einstellung nur hochwertige Kassetten verwenden. Das Band darf an den Kanten keine mechanischen Verletzungen oder Verformungen aufweisen.

- Bandberührende Teile mit einem feuchten Filzstab (im REVOX-Reinigungs-Set enthalten) reinigen und entmagnetisieren.
- Kassette einlegen und die der Kassetten sorte entsprechende Drucktaste TAPE SELECTOR drücken. Bei nach IEC kodierten Kassetten kann in Position AUTO gearbeitet werden.
- An LINE INPUT ca. 7 mV, 10 kHz einspeisen; am LINE OUTPUT muss -20 dBu anstehen (Schalter MONITOR auf SOURCE).
- Gerät auf Aufnahme starten (Tasten REC und PLAY).
- Schalter MONITOR auf TAPE stellen.
- Mit Kreuzschlitzschraubendreher Grösse 00 Schraube Y (Fig. 5.4) so einstellen, dass für beide Kanäle ein Pegelmaximum erreicht wird (minimale Phasendifferenz).

Die nachfolgenden Einstellungen gelten für eine Bandsorte. Für die anderen Sorten ist in der gleichen Weise vorzugehen. Über die Lage der entsprechenden Trimmervariatoren gibt Fig. 5.3 Auskunft.

5.4.2 Adjusting the azimuth of the record head

Caution:

When making this adjustment, use only high-quality cassettes that have been spooled forward and backward once. The tape must not show any mechanical damage or deformations along the edges.

- Clean all parts that come in contact with the tape with a moist felt stick (included in the REVOX cleaning kit) and subsequently demagnetize these parts.
- Load cassette and press the TAPE SELECTOR button that corresponds to the type of cassette. For cassettes coded according to the IEC scheme, the AUTO position can be used.
- Feed in approx. 7 mV, 10 kHz, at LINE INPUT; line level -20 dBu should be available at the LINE OUTPUT (MONITOR switch in SOURCE position).
- Start record in play mode (press REC and PLAY).
- Set MONITOR switch to TAPE position.
- With screwdriver size 00 for cross recessed head screws adjust screw Y (Fig. 5.4) in such a manner that maximum level is obtained for both channels (minimum phase difference).

The following adjustments apply for one type of tape only. For other tape types, proceed in the same manner. The position of the corresponding trimmer potentiometers can be determined from Fig. 5.3.

5.4.3 Einstellen der Vormagnetisierung

5.4.3 Adjusting the tape bias

- Gleiche Vorbereitungen wie unter Kapitel 5.4.2.
- Die entsprechenden Trimmervariatoren auf der Oszillatorsteckplatte (siehe Fig. 5.3) so einstellen, dass für beide Kanäle ein maximaler Ausgangspegel erreicht wird.
- Die erreichten Werte (in dB) notieren, von diesem Wert den jeweiligen Betrag nach Fig. 5.7 abziehen.
- Den errechneten Wert mit den entsprechenden Trimmervariatoren einstellen.
- Same preparations as described in 5.4.2.
- Adjust the corresponding trimmer potentiometers on the oscillator PCB (refer to Fig. 5.3) in such a manner, that maximum output level is obtained for both channels.
- Write down the actual values (in dB) and deduct from this value the amount shown in Fig. 5.7.
- Set this calculated value with the corresponding trimmer potentiometers.

5.4.2 Azimut de la tête d'enregistrement

Attention:

N'employez pour ces réglages que des cassettes de haute qualité qui auront été préalablement déroulées et rebobinées par l'appareil. La bande ne doit en aucun cas présenter de détériorations ou de déformations mécaniques sur les bords.

- Nettoyez les pièces en contact avec la bande avec un coton-tige humide (contenu dans le set de nettoyage REVOX) et démagnétisez les.
- Introduisez une cassette et appuyez sur la touche correspondante de TAPE SELECTOR. Dans le cas de cassettes codées IEC, on peut utiliser la position AUTO.
- Injectez une tension de 7 mV sur LINE INPUT, 10 kHz; on doit mesurer -20 dB à LINE OUTPUT (commutateur MONITOR sur SOURCE).
- Appuyez sur les touches REC et PLAY.
- Placez le commutateur MONITOR sur TAPE.
- Tournez la vis Y (fig. 5.4) avec le tournevis cruciforme taille 00 pour obtenir un niveau maximal pour les deux canaux (différence minimale de phase).

Les réglages qui suivent sont valables pour un type de bande. Pour les autres sortes, on procédera de même. La figure 5.3 indique l'emplacement des trimmers correspondants.

5.4.3 Réglage de la prémagnétisation

- Mêmes travaux préliminaires qu'au chapitre 5.4.2.
- Réglez les trimmers de la carte oscillateur (voir fig. 5.3) de façon à obtenir un niveau maximal des deux canaux.
- Notez les valeurs absolues en dB puis soustrayez leur la valeur correspondante indiquée fig. 5.7.
- Ajustez à la valeur calculée à l'aide des trimmers.

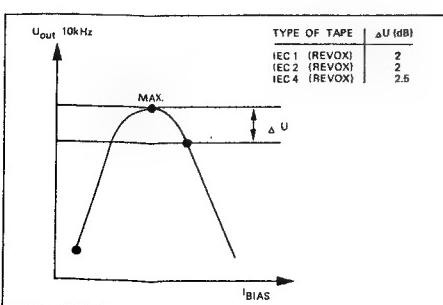


Fig. 5.7

Achtung:
Die Kanäle beeinflussen sich gegenseitig. Beim Einstellen des maximalen Pegels muss daher der bestmögliche Kompromiss gesucht werden.

Caution:
The channels influence each other. When adjusting for maximum level, the optimum compromise must be found.

Attention:
Les canaux s'influencent mutuellement. Lors du réglage au niveau maximal, on doit rechercher le meilleur compromis.

5.4.4 Aufnahmepiegel und -Entzerrung einstellen

- Vorbereitungen wie unter Kapitel 5.4.2.
- An LINE INPUT 7 mV, 315 Hz einspielen.
- Schalter DOLBY NR auf OFF stellen.
- Gerät auf Aufnahme starten.
- Die Trimmsteller LEVEL (Record Equalizer 1.710.486) so einstellen, dass beim Umschalten des Schalters MONITOR von Position SOURCE auf TAPE kein Pegelsprung auftritt.
- Trimmsteller EQUALIZATION (Record Equalizer 1.710.486) bei folgenden Frequenzen gegenüber 315 Hz vor-einstellen:

| | | |
|---------|--------|--------------|
| IEC 1 | 10 kHz | 0 bis + 1 dB |
| IEC 2+4 | 14 kHz | 0 bis + 1 dB |
- Die Frequenzgänge für alle drei Bandsorten kontrollieren und mit Trimmsteller EQUALIZATION auf möglichst geradlinigen Frequenzgang einstellen.
- Pegelsprung mit IEC2 Kassette bei Dolby-Pegel 0 dB, 250 Hz durch Umschalten des Schalters MONITOR kontrollieren. Die Anzeige am PEAK METER Display darf nicht ändern. Bei Abweichung mit den Trimmstellern LEVEL (1.710.471) nachjustieren. Falls diese Einstellung nicht möglich ist, muss R58 (auf Print 1.710.471) vergrössert resp. verkleinert werden.

5.4.4 Adjusting the record level and equalization

- Same preparations as described in 5.4.2.
- Feed in 7 mV, 315 Hz, at LINE INPUT.
- Set DOLBY NR switch to OFF position.
- Start tape transport in record mode.
- Adjust trimmer potentiometer LEVEL (record equalization 1.710.486) in such a manner that no level jump occurs when changing the MONITOR switch setting from SOURCE to TAPE.
- Preadjust the trimmer potentiometer EQUALIZATION (record equalizer 1.710.486) with the following frequencies relative to 315 Hz:

| | | |
|---------|--------|-------------|
| IEC 1 | 10 kHz | 0 to + 1 dB |
| IEC 2+4 | 14 kHz | 0 to + 1 dB |
- Check the frequency responses for all three tape types and adjust for best possible linearity with the aid of trimmer potentiometer EQUALIZATION.
- Load IEC2 cassette and start tape transport in record mode.
- Feed in Dolby level 0dB, 250Hz. When changing the MONITOR switch setting from SOURCE to TAPE, the indication at the PEAK METER should not vary. In case of a difference adjust trimmer LEVEL (1.710.471). If this adjustment is not possible, R58 (on PCP 1.710.471) must be increased or decreased.

5.4.4 Réglage du niveau et de la correction à l'enregistrement

- Mêmes travaux préliminaires qu'en chapitre 5.4.2.
- Injectez 7mV, 315 Hz sur LINE INPUT.
- Le commutateur DOLBY-NR doit être sur OFF.
- Démarrez en enregistrement.
- Réglez les trimmers LEVEL (Record Equalizer 1.710.486) de manière à n'avoir aucun saut de niveau en passant de SOURCE à TAPE avec le commutateur MONITOR.
- Effectuez les corrections, rapportées à 315 Hz, pour les fréquences suivantes à l'aide des trimmers EQUALIZATION (Record Equalizer 1.710.486):

| | | |
|---------|--------|------------|
| IEC 1 | 10 kHz | 0 à + 1 dB |
| IEC 2+4 | 14 kHz | 0 à + 1 dB |
- Contrôlez la réponse en fréquence pour les trois sortes de bandes en essayant de l'obtenir la plus linéaire possible à l'aide des trimmers EQUALIZER.
- Introduisez une cassette IEC2 et mettez l'appareil en position d'enregistrement.
- Injectez le niveau Dolby 0dB, 250Hz et placez le commutateur MONITOR sur TAPE. L'indication au PEAK METER ne doit pas varier. Sinon, ajustez les trimmers LEVEL (1.710.471). Si on ne peut pas procéder à l'ajustage, il faut modifier R58 (1.710.471).

5.5 Messen verschiedener Kenndaten

5.5.1 Klirrfaktor k3 von 315 Hz

LINE INPUT 70 mV, DOLBY NR auf ON (B oder C)
 IEC1 0,8%
 IEC2 1,5%
 IEC4 1,5%

5.5 Measuring various characteristics

5.5.1 Distortion k3 of 315 Hz

LINE INPUT 70 mV, DOLBY NR ON (B or C)
 IEC1 0.8%
 IEC2 1.5%
 IEC4 1.5%

5.5 Mesure de différentes caractéristiques

5.5.1 Taux de distorsion h3 à 315 Hz

LINE INPUT 70 mV, DOLBY NR sur ON (B ou C)
 IEC1 0,8%
 IEC2 1,5%
 IEC4 1,5%

5.5.2 Geräusch/Fremdspannungsabstand "über Band"

Bezogen auf Vollaussteuerung k3 = 3%, Regler INPUT LEVEL in Linksanschlag, Gerät verschalt

| Band | bewertet (IEC-A) | unbewertet (Fremd) | Dolby B | Dolby C | Dolby B | Dolby C |
|------|------------------|-----------------------|---------|---------|---------|---------|
| IEC1 | >66dB | >72dB | >56dB | >58dB | >56dB | >58dB |
| IEC2 | >64dB | >73dB | >56dB | >58dB | >56dB | >58dB |
| IEC4 | >66dB | >73dB | >56dB | >58dB | >56dB | >58dB |

Die angegebenen Werte beziehen sich auf Vollaussteuerung k3 = 3% in Wiedergabe gemessen. Falls sie nicht erreicht werden, sind als erste Massnahmen die bandberührenden Metallteile (Köpfe, Achsen, etc.) sorgfältig zu entmagnetisieren.

5.5.3 Löschdämpfung und Kanalübersprechen

Diese beiden Messungen müssen mit einem selektiven Voltmeter ausgeführt werden (Bandbreite < 100 Hz).

Löschdämpfung von 1000 Hz bezüglich Vollpegel:

- Neue oder gelöschte Kassette, Bandtyp IEC4 einlegen und Zähler auf Null setzen.
- Schalter DOLBY NR auf ON, B-TYPE stellen.
- 1000 Hz-Ton aufzeichnen, Pegel ca. + 6 dB.
- Kassette auf Null zurückspulen und das Eingangssignal abschalten.
- Gerät auf Aufnahme starten, der Messwert muss besser als -70 dB sein.

Durch die Messung mit dem Bandtyp IEC4 ist gewährleistet, dass bei Erreichen des angegebenen Wertes die geforderte Löschdämpfung mit Sicherheit auch bei allen anderen Bandsorten erreicht wird.

Kanalübersprechen:

Gemessen wird am Ausgang des nicht ausgesteuerten Kanals, darum muss dessen Regler INPUT LEVEL in Linksanschlag gebracht werden.

- Messfrequenz 1000 Hz +6 dB aufzeichnen.
- Der Messwert des nicht ausgesteuerten Kanals muss besser als -40 dB sein.

5.5.2 Signal-to-noise ratio "with tape"

Relative to peak reproduce level k3 = 3% Turn INPUT LEVEL control to counterclockwise limit position, recorder in housing.

| Tape | weighted (IEC-A) | unweighted | Dolby B | Dolby C | Dolby B | Dolby C |
|------|------------------|------------|---------|---------|---------|---------|
| IEC1 | >66dB | >72dB | >56dB | >58dB | >56dB | >58dB |
| IEC2 | >64dB | >73dB | >56dB | >58dB | >56dB | >58dB |
| IEC4 | >66dB | >73dB | >56dB | >58dB | >56dB | >58dB |

The specified values refer to peak reproduce level k3 = 3%. If they cannot be reached, the first remedial step is to carefully demagnetize all metal parts that come in contact with the tape (heads, shafts, etc.).

5.3.3 Erase depth and interchannel cross talk

The two measurements are to be made with a selective voltmeter (band width < 100 Hz).

Erase depth of 1000 Hz relative to full level:

- Load virgin or erased cassette, tape type IEC4, and reset counter to zero.
- Set DOLBY-NR to ON (B-Type).
- Record 1000 Hz signal, line level approximately + 6 dB.
- Rewind cassette to zero and switch off input signal.
- Start tape transport in record mode; the measured value must be better than -70 dB.

If the specified value is achieved with tape type IEC4, you can be sure that the required erase depth will also be achieved for all other tape types.

Interchannel cross talk:

The measurement is taken at the non-driven channel which means that its input must be short-circuited.

- Record test frequency 1000 Hz line level + 6 dB.
- The measured value at the non-driven channel must be better than -40 dB.

rapporté à la modulation maximale h3 = 3% potentiomètre INPUT LEVEL en butée gauche, appareil complètement remonté.

| Band | valeur pondérée (IEC-A) | Dolby B | Dolby C | Dolby B | Dolby C |
|------|----------------------------|---------|---------|---------|---------|
| IEC1 | >66dB | >72dB | >56dB | >58dB | >56dB |
| IEC2 | >64dB | >73dB | >56dB | >58dB | >56dB |
| IEC4 | >66dB | >73dB | >56dB | >58dB | >56dB |

Ces mesures se rapportent à une modulation maximale h3 = 3%. Si on ne peut les atteindre, il convient d'abord de démagnétiser toutes les pièces métalliques en contact avec la bande.

5.5.3 Efficacité de l'effacement et diaphonie

Ces deux mesures sont réalisées avec un voltmètre sélectif (largeur de bande 100 Hz).

Efficacité de l'effacement à 1 kHz par rapport au niveau maximal:

- Introduisez une cassette neuve ou effacée, type IEC4 et mettez le compteur à zéro.
- Placez le commutateur DOLBY-NR sur OFF.
- Enregistrez un son de 1 kHz, à +6 dB env.
- Rebobinez la cassette jusqu'au début et débranchez le signal d'entrée.
- Démarrer l'appareil en enregistrement, la valeur mesurée doit être meilleure que -70 dB.

La mesure avec le type de bande IEC4 garantit les valeurs d'effacement exigées pour les autres sortes si on a atteint la valeur requise avec IEC4.

Diaphonie:

La mesure s'effectue à la sortie du canal qui n'est pas modulé, aussi doit-on court-circuiter son entrée.

- La fréquence de mesure est 1 kHz, à +4 dB.
- La valeur de mesure de la diaphonie doit être meilleure que -40 dB.

5.5.4 Fremd- und Geräuschspannungsabstand der Mikrofoneingänge

- Regler LINE LEVEL im Gegenuhzeigersinn in den Anschlag drehen. (Geräte-Rückseite)
- Regler INPUT LEVEL LINE im Gegenuhzeigersinn in den Anschlag drehen.
- Regler INPUT LEVEL MIC im Uhrzeigersinn in den Anschlag drehen.
- Beide Mikrofoneingänge mit 200 Ohm abschliessen.
- Schalter MONITOR auf SOURCE stellen.

Die Daten werden bezogen auf 0 dB (200 nWb/m):

Fremdspannungsabstand >52 dB (62)

Geräuschspannungsabstand (IEC-A) >54 dB (65)

Die Werte in Klammern beziehen sich auf die Be-stückung mit 1.710.351 und 1.710.489.

5.5.4 Signal-to-noise ratio of microphone inputs

- Turn LINE LEVEL control to counter-clockwise limit position (on rear panel).
- Turn INPUT LEVEL LINE control to counterclockwise limit position.
- Turn INPUT LEVEL MIC control to clockwise limit position.
- Terminate both microphone inputs with 200 ohm.
- Set MONITOR switch to SOURCE position.

The specifications are relative to 0 dB (200 nWb/m):

SN ratio, unweighted >52 dB (62)

SN ratio, weighted (IEC-A) >54 dB (65)

The values in brackets refer to recorders equipped with the assemblies 1.710.351 and 1.710.489.

5.5.4 Recul du bruit de fond des entrées micro

- Placez le potentiomètre LINE LEVEL en butée en le tournant dans le sens con-traire des aiguilles d'une montre.
- Amenez de même façon le potentio-mètre INPUT LEVEL LINE en butée.
- Tournez INPUT LEVEL MIC en sens in-verse jusqu'à la butée.
- Chargez les deux entrées micro avec 200 Ohm chacune.
- Placez le commutateur MONITOR sur SOURCE.

Les donnés sont références à 0 dB (200 nWb/m): recul du souffle >52 dB (62)

rapport signal/bruit (IEC-A) >54 dB (65)

Les valeurs entre parenthèses se rapportent aux circuits 1.710.351 et 1.710.489.

5.5.5 Tonhöhenschwankungen

Die in den Technischen Daten spezifizierten Gleichlaufwerte sind mit einem Tonhöhen-schwankungs-Messgerät nach IEC 386 (DIN 45507) in Stellung "bewertet" gemessen (geprüft mit Wobbel-Kassette 3150 Hz).

5.5.5 Wow and flutter

The wow-and-flutter values listed in the tech-nical specifications are measured with a wow-and-flutter meter according to IEC 386 (DIN 45507) in the "weighted" position (measured with a "wow-and-flutter"-cassette 3150 Hz).

5.5.5 Pleurage

Le taux de pleurage spécifié dans les caractéristi-ques techniques est mesuré à l'aide d'un vobulo-mètre selon IEC 386 (DIN 45507), en position "pondérée" avec une cassette de pleurage 3150Hz.



CONTENTS

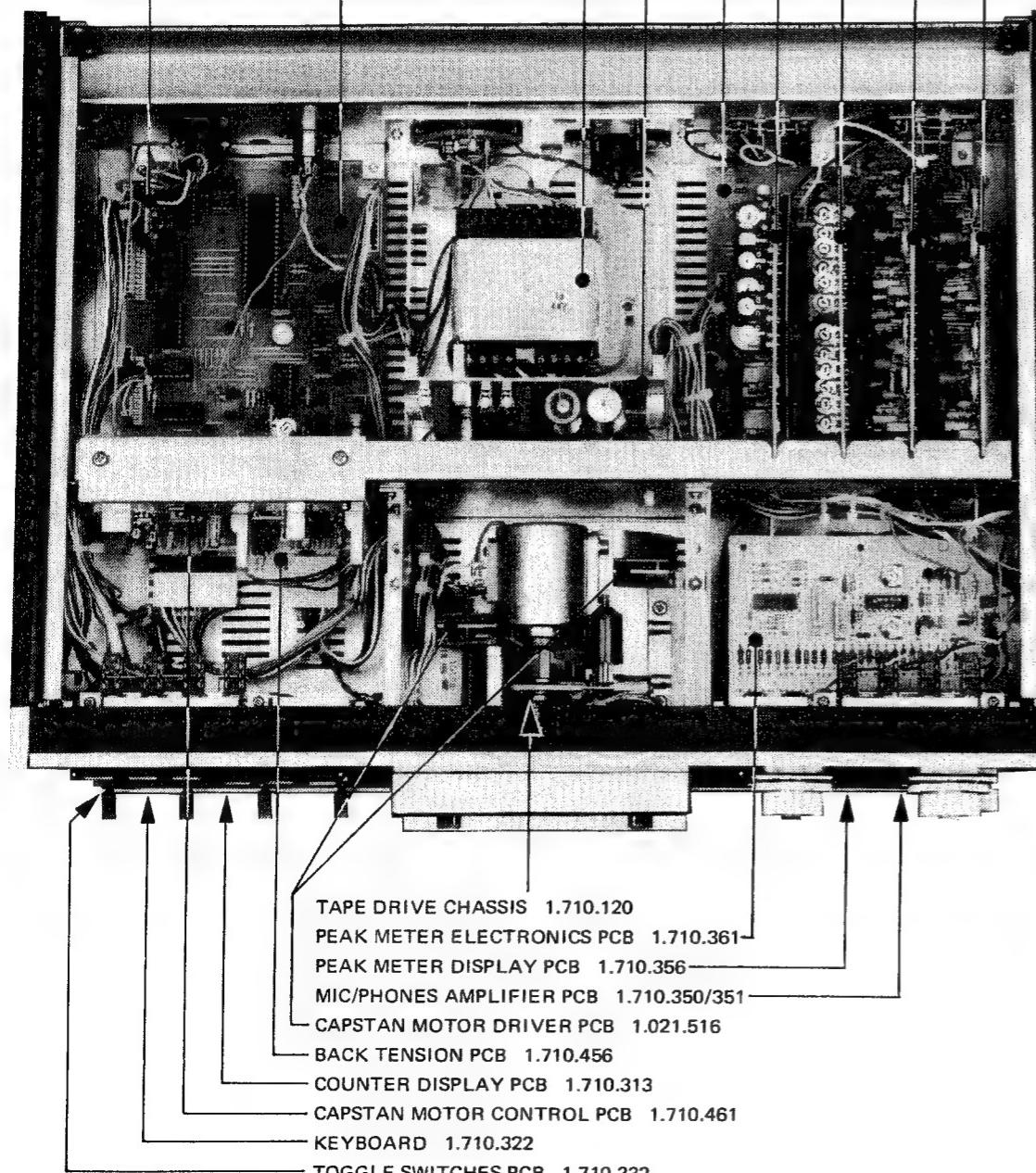
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| POWER SUPPLY AND TAPE DRIVE | | | | 6 |
| BOARDS LOCATION MKII | x | | | 6/2 |
| BOARDS LOCATION MKI | | x | | 6/2 |
| POWER SUPPLY / TRANSFORMER UNIT | x | x | 1.710.256/260 | 6/3 |
| WIRING DIAGRAM / TAPE DRIVE SECTION MKII | x | | | 6/5 |
| WIRING DIAGRAM / TAPE DRIVE SECTION MKI | | x | | 6/6 |
| TAPE DRIVE / BLOCK DIAGRAM MKII | x | | | 6/7 |
| TAPE DRIVE / BLOCK DIAGRAM MKI | | x | | 6/8 |
| MICROPROCESSOR CONTROL PCB | x | | ▲ 1.710.465-81 | 6/9 |
| - WM-CONTROL PCB | x | | 1.710.463 | 6/9 |
| MICROPROCESSOR CONTROL PCB | | x | ▲ 1.710.465-00 | 6/11 |
| - WM-CONTROL PCB | | x | 1.710.462 | 6/11 |
| - WML-LOGIC CONTROL PCB | | x | 1.710.468 | 6/11 |
| - MICROPROCESSOR LOGIC PCB | | x | ▲ 1.710.467 | 6/13 |
| HEAD LIFTING CIRCUIT | | x | 1.710.469-00/-81 | 6/15 |
| BACK TENSION PCB | x | x | 1.710.456 | 6/17 |
| PROGRAM PRESET SWITCHES | x | x | | 6/19 |
| TOGGLE SWITCHES PCB | x | x | 1.710.332 | 6/20 |
| REMOTE CONTROL INTERFACE | x | x | 1.710.441/442 | 6/21 |
| REMOTE CONTROL PCB | x | x | 1.128.065 | 6/23 |
| COUNTER DISPLAY PCB | x | | 1.710.313 | 6/25 |
| COUNTER DISPLAY PCB | | x | 1.710.312 | 6/27 |
| KEYBOARD | x | x | 1.710.322 | 6/29 |
| CAPSTAN MOTOR CONTROL BLOCKDIAGRAM | x | x | | 6/31 |
| CAPSTAN MOTOR CONTROL PCB | x | x | ▲ 1.710.461 | 6/33 |
| CAPSTAN MOTOR DRIVER PCB | x | x | 1.021.516 | 6/35 |
| TAPE DRIVE CHASSIS (WITH HEAD BLOCK ASSEMBLY) | x | x | 1.710.120 | 6/37 |
| AUDIO | | | | 7 |
| AUDIO BLOCKDIAGRAM MKII | x | | | 7/3 |
| AUDIO BLOCKDIAGRAM MKI | | x | | 7/3 |
| WIRING OF CASSETTE CODING SWITCHES | x | | | 7/4 |
| INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) | x | | ▲ 1.710.471-81 | 7/5 |
| INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) | x | | ▲ 1.710.471-00 | 7/7 |
| INTERCONNECTION PCB | x | | 1.710.470 | 7/9 |
| AUDIO LOGIC CONTROL PCB | x | | 1.710.475 | 7/11 |
| OSCILLATOR PCB | x | x | ▲ 1.710.480-00/-81 | 7/13 |
| RECORD EQUALIZER PCB | x | | ▲ 1.710.486 | 7/15 |
| RECORD EQUALIZER PCB | x | | ▲ 1.710.485 | 7/17 |
| DOLBY-C ENCODER PCB | x | | ▲ 1.710.489 | 7/19 |
| DOLBY-C ENCODER PCB | x | | ▲ 1.710.488 | 7/21 |
| DOLBY-C DECODER PCB (WITH REPRODUCE AMPLIFIER) | x | | ▲ 1.710.492 | 7/23 |
| REPRODUCE AMPLIFIER PCB | x | | ▲ 1.710.490 | 7/25 |
| MIC/PHONES AMPLIFIER PCB | x | | 1.710.351 | 7/27 |
| MIC/PHONES AMPLIFIER PCB | x | x | 1.710.350 | 7/29 |
| PEAK METER ELECTRONICS PCB | x | x | ▲ 1.710.361(360) | 7/31 |
| PEAK METER DISPLAY PCB | x | | 1.710.356 | 7/33 |
| PEAK METER DISPLAY PCB | x | | 1.710.355 | 7/35 |
| SERVICE WIRING LIST MKII | x | | | 7/37 |
| SERVICE WIRING LIST MKI | x | | | 7/41 |



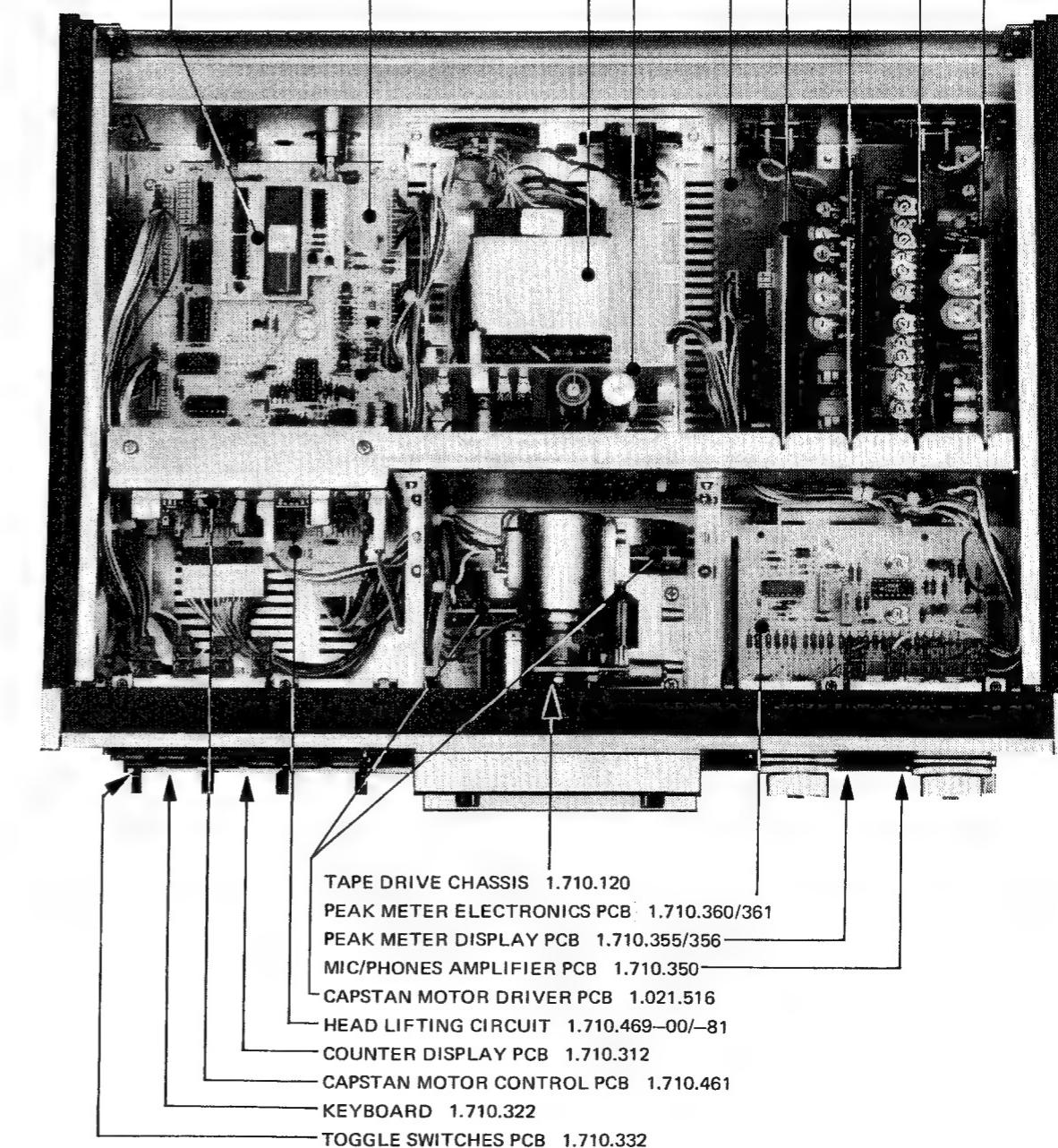
ALL PCBs MARKED WITH THIS SIGN ▲
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STATIC CHARGES.
PLEASE, REFER TO PREFACE BEFORE
YOU REMOVE THESE BOARDS.

BOARDS LOCATION MKII

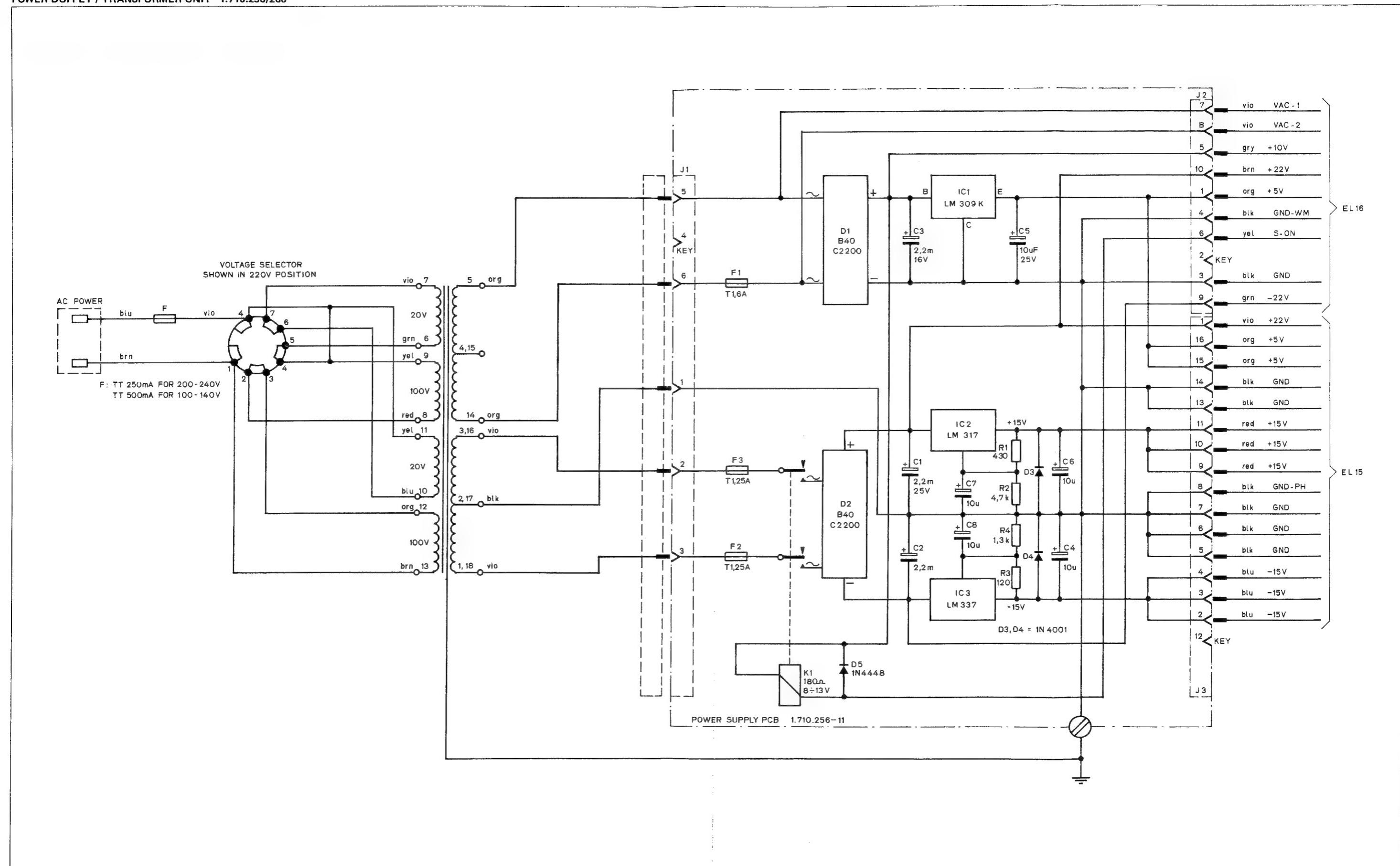
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 OSCILLATOR PCB 1.710.480-00/-81
 INTERCONNECTION PCB 1.710.471
 POWER SUPPLY PCB 1.710.256
 TRANSFORMER UNIT 1.710.260
 REMOTE CONTROL INTERFACE 1.710.442
 MICROPROCESSOR CONTROL PCB 1.710.465-81



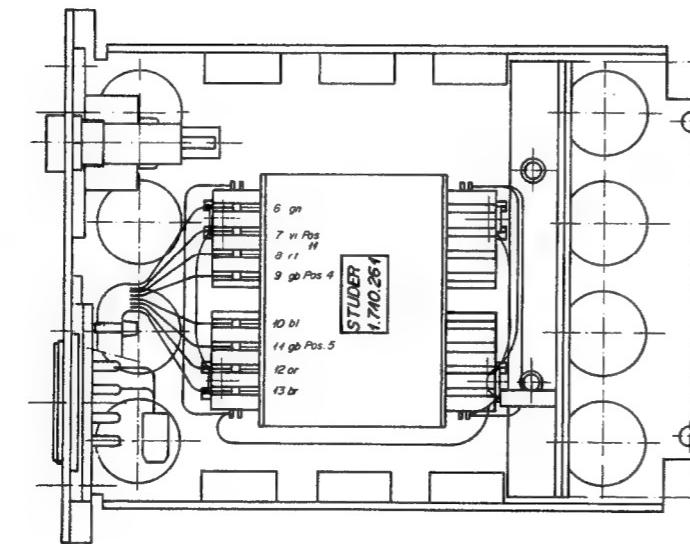
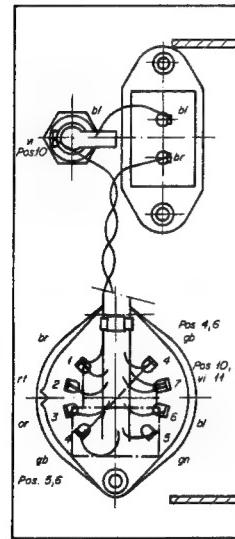
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 OSCILLATOR PCB 1.710.480-00
 AUDIO LOGIC CONTROL PCB 1.710.475
 INTERCONNECTION PCB 1.710.470
 POWER SUPPLY PCB 1.710.256
 TRANSFORMER UNIT 1.710.260
 MICROPROCESSOR LOGIC PCB 1.710.467
 MICROPROCESSOR CONTROL PCB 1.710.465-00



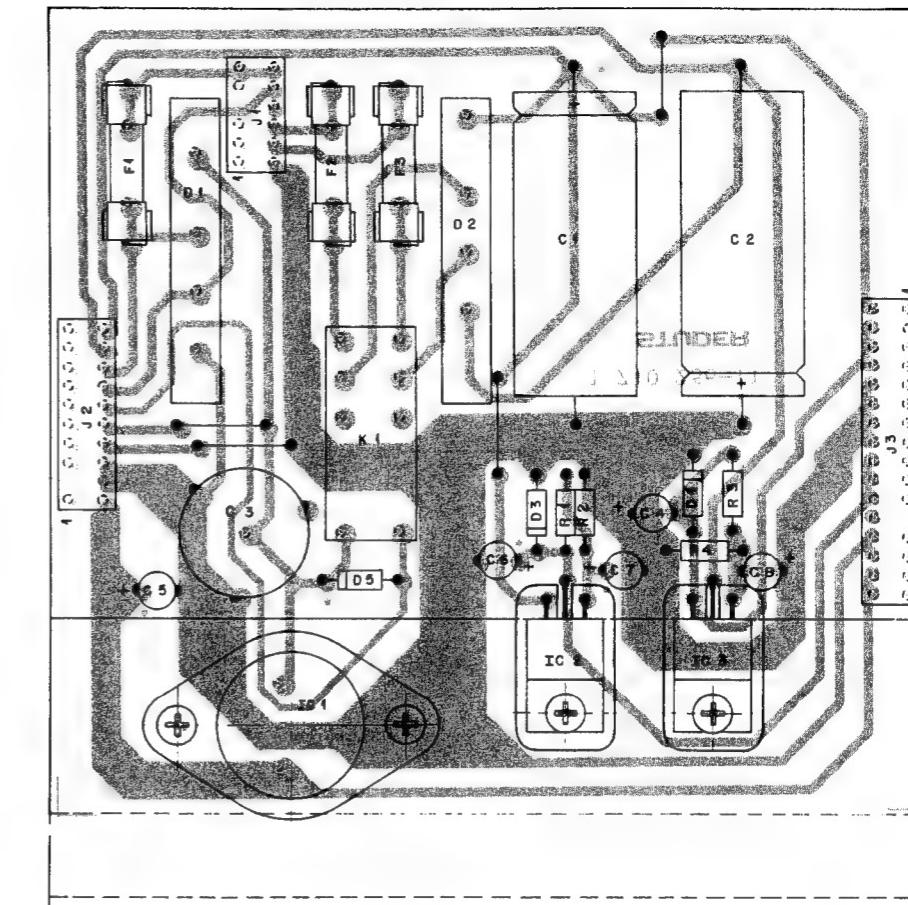
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POWER SUPPLY / TRANSFORMER UNIT 1.710.256/260



TRANSFORMER UNIT 1.710.260



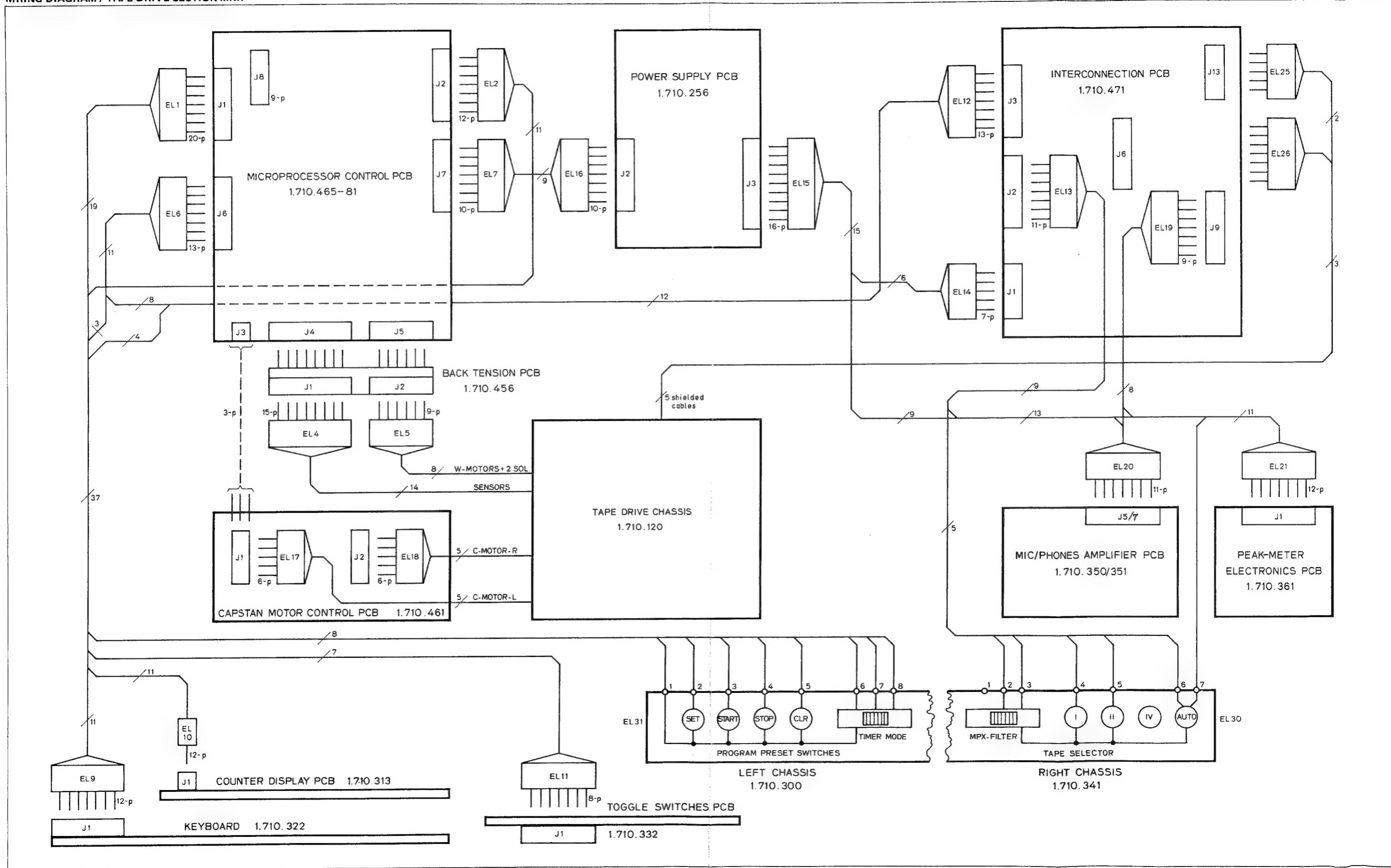
POWER SUPPLY PCB 1.710.256

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|---------|------------|----------|-----------|-----------------------------|--------|---------|------------|-----------------|-----------------------------|-----------------------------|--------|
| C.....1 | 59.25.4222 | 2200 uF | -10% 25V | E1 | | D.....1 | 70.01.0235 | B 40 C 2200 | | | |
| C.....2 | 59.25.4222 | 2200 uF | -10% 25V | E1 | | D.....2 | 70.01.0235 | B 40 C 2200 | | | |
| C.....3 | 59.22.4222 | 2200 uF | -10% 16V | E1 | | D.....3 | 50.04.0122 | IN 4001 | | | |
| C.....4 | 59.22.4222 | 2200 uF | -10% 16V | E1 | | D.....4 | 50.04.0122 | IN 4001 | | | |
| C.....5 | 59.22.6100 | 10 uF | -10% 25V | E1 | | D.....5 | 50.04.0125 | IN 4448 | | | |
| C.....6 | 59.22.6100 | 10 uF | -10% 25V | E1 | | F.....1 | 51.01.0119 | 1.6 A slow blow | 5x20mm | | |
| C.....7 | 59.22.6100 | 10 uF | -10% 25V | E1 | | F.....2 | 51.01.0118 | 1.25A slow blow | 5x20mm | | |
| C.....8 | 59.22.6100 | 10 uF | -10% 25V | E1 | | F.....3 | 51.01.0118 | 1.25A slow blow | 5x20mm | | |
| D.....1 | 70.01.0235 | | | B 40 C 2200 | | IC....1 | 50.05.0133 | LM 308K | +5V Volt. Regulator | N, M | |
| D.....2 | 70.01.0235 | | | B 40 C 2200 | | IC....2 | 50.10.0104 | LM 317 | +1.2V- +37V Volt. Regulator | N, T | |
| D.....3 | 50.04.0122 | | | | | IC....3 | 50.10.0105 | LM 337 | -1.2V- -37V Volt. Regulator | N, T | |
| D.....4 | 50.04.0122 | | | | | J....1 | 54.01.0238 | 6-Pole | | | |
| D.....5 | 50.04.0125 | | | | | J....2 | 54.01.0242 | 10-Pole | | | |
| F.....1 | 51.01.0119 | 1.6 A | slow blow | 5x20mm | | J....3 | 54.01.0301 | 16-Pole | | | |
| F.....2 | 51.01.0118 | 1.25A | slow blow | 5x20mm | | K....1 | 56.01.0117 | 2 A | 8...13V/ 180 Ohm | | |
| F.....3 | 51.01.0118 | 1.25A | slow blow | 5x20mm | | R....1 | 57.11.4431 | 430 Ohm | 2%, 0.25W, CF | | |
| IC....1 | 50.05.0133 | LM 308K | | | | R....2 | 57.11.4472 | 4.7 kOhm | 2%, 0.25W, CF | | |
| IC....2 | 50.10.0104 | LM 317 | | | | R....3 | 57.11.4121 | 120 Ohm | 2%, 0.25W, CF | | |
| IC....3 | 50.10.0105 | LM 337 | | | | R....4 | 57.11.4132 | 1.3 kOhm | 2%, 0.25W, CF | | |

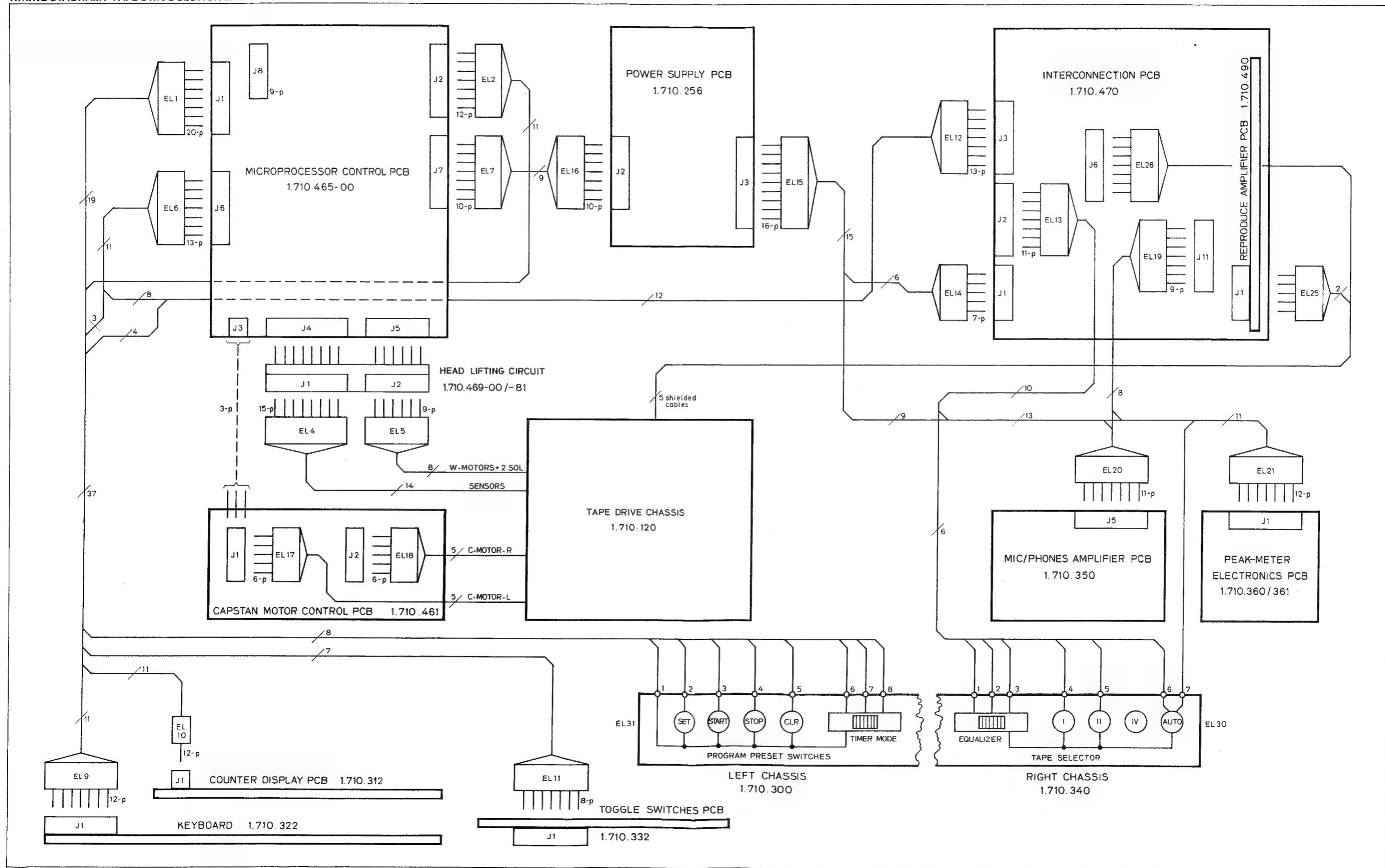
E1=Electrolytic,
CF=Carbon Film, Si=Silicon,
MANUFACTURER: N=NATIONAL, T=TEXAS INSTRUMENTS, M=MOTOROLA,

ORIG R1/C2/23

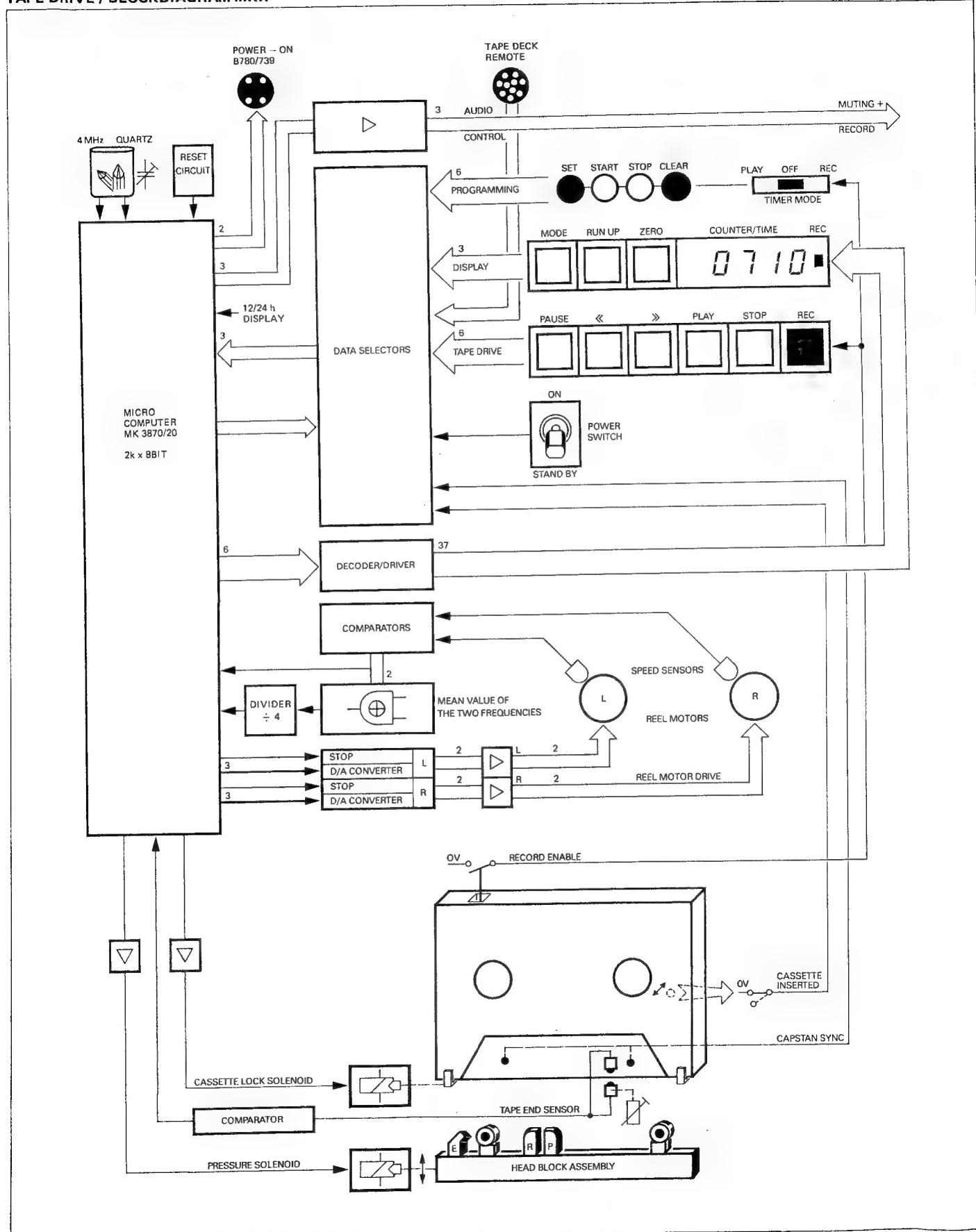
WIRING DIAGRAM / TAPE DRIVE SECTION MKI



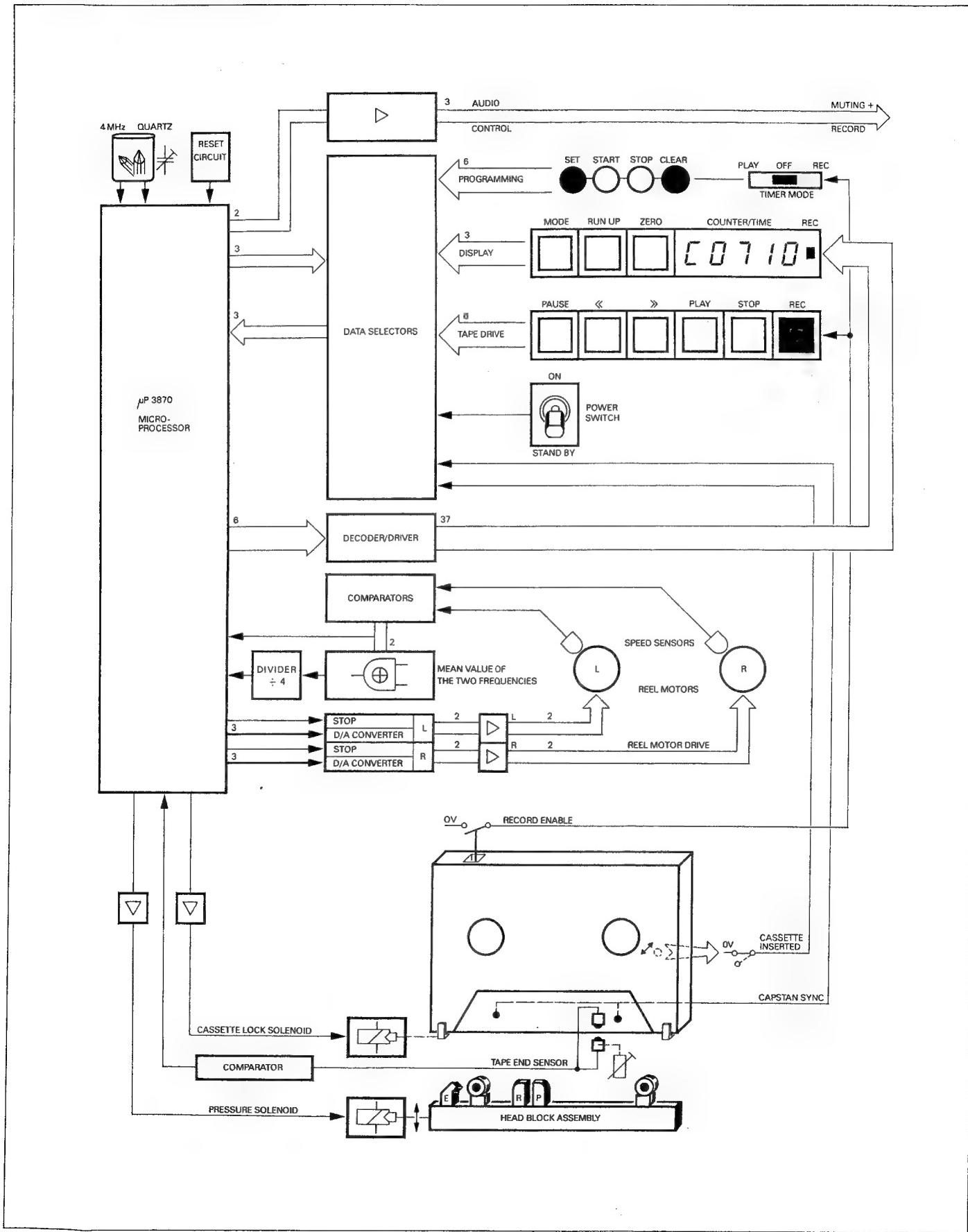
WIRING DIAGRAM / TAPE DRIVE SECTION MKI



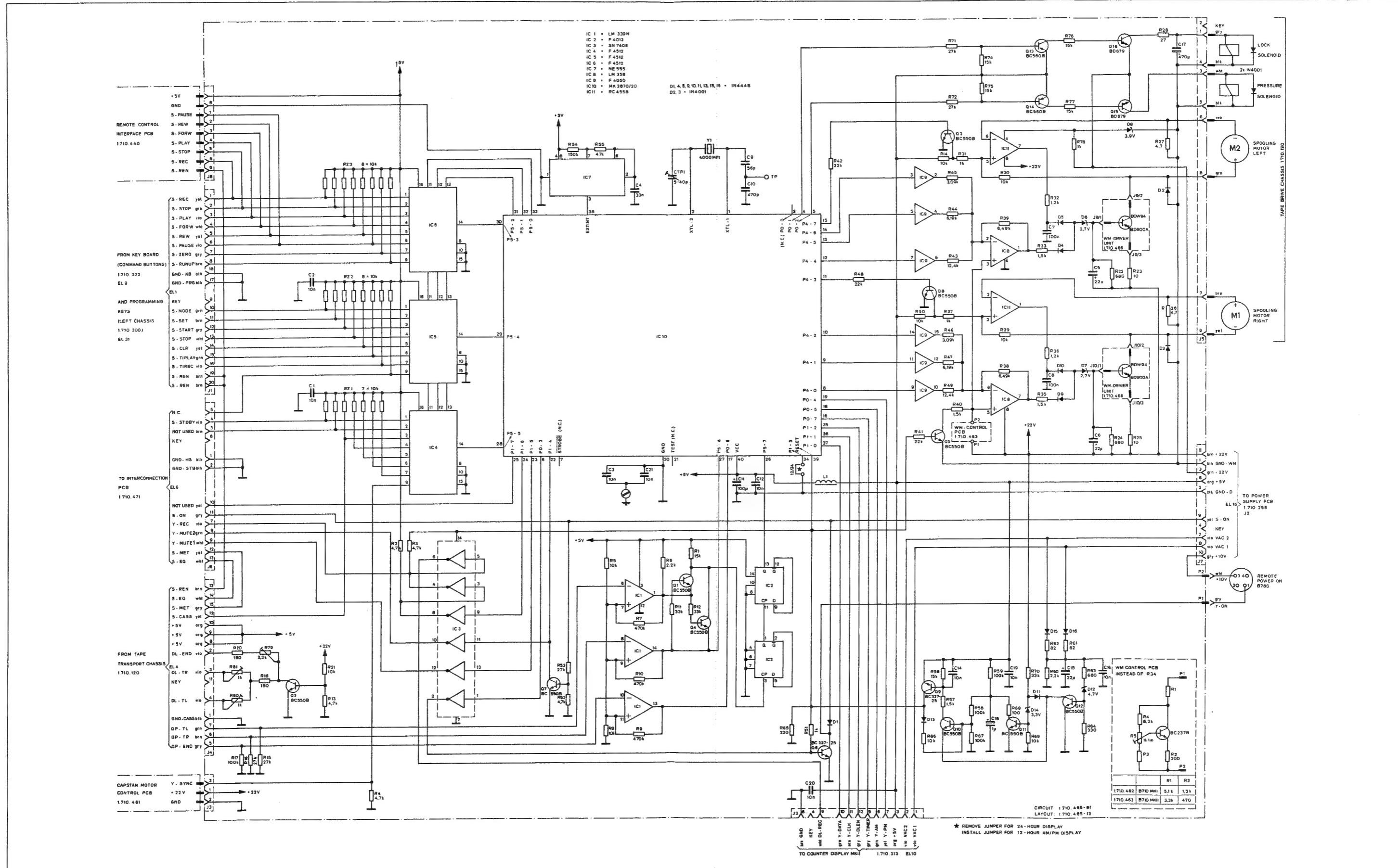
TAPE DRIVE / BLOCKDIAGRAM MKII



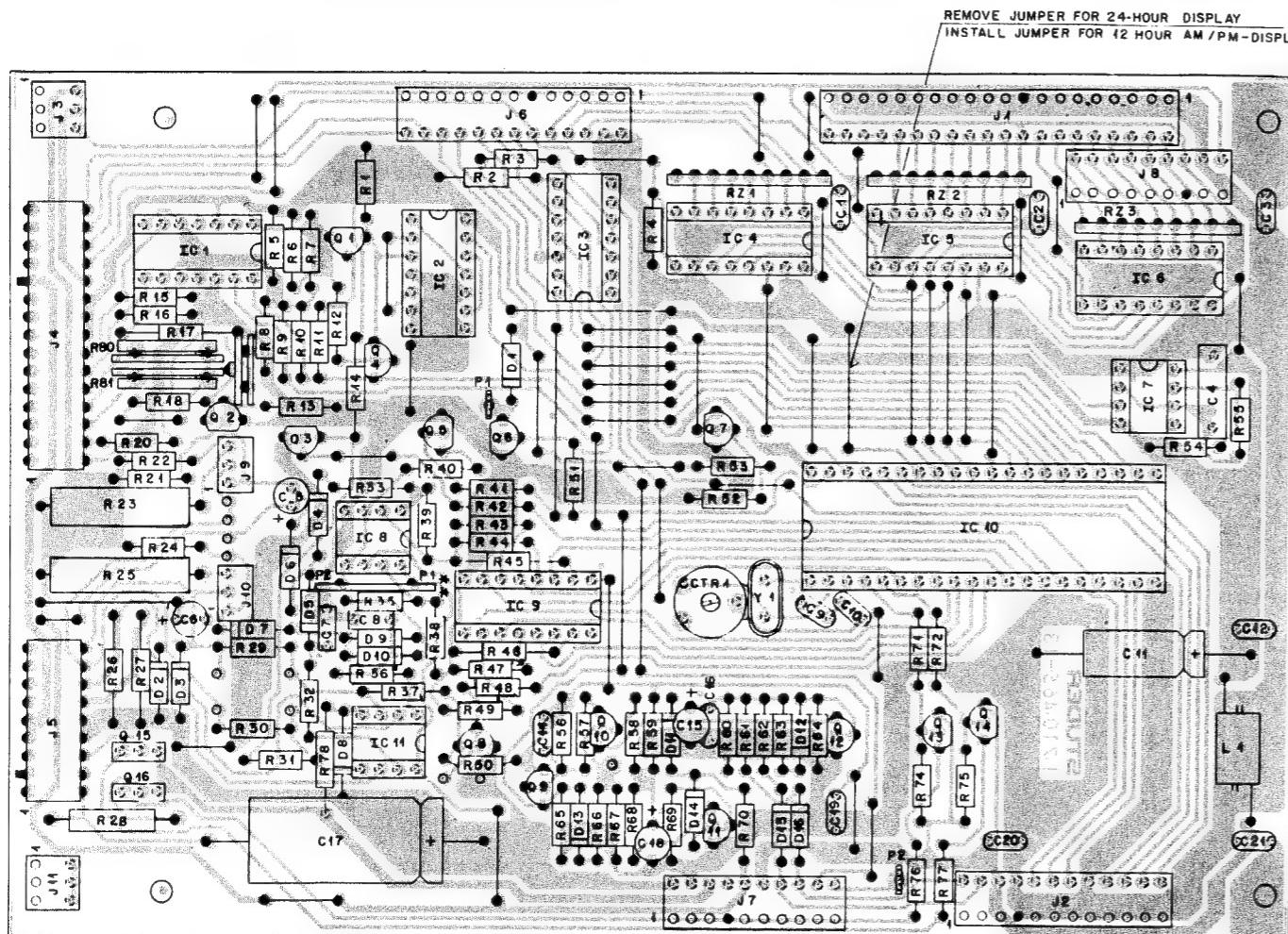
TAPE DRIVE / BLOCKDIAGRAM MKI



MICROPROCESSOR CONTROL PCB 1.710.465-81



MICROPROCESSOR CONTROL PCB 1.710.465-81



MICROPROCESSOR CONTROL PCB 1.710.465-81

| IND. | POS-N. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | | MANUF. | IND. | POS-N. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | | MANUF. |
|------|----------|--------------|---------|-----------------------------|---------------------|--------|---------|-----------------|---------------|----------------|-----------------------------|--|--------|
| (01) | C****1 | 59.32..3103 | 10 nF | 20%, 25V | Cer | | R****27 | 57..11..3479 | 4.7 Ohm | 15%, 0.25W, MF | | | |
| | C****2 | 59.32..3103 | 10 nF | 20%, 25V | Cer | | R****28 | 57..12..4270 | 27 Ohm | 5%, 0.25W, MF | | | |
| | C****3 | 59.32..3103 | 10 nF | 20%, 25V | Cer | | R****29 | 57..11..3103 | 10 kOhm | 15%, 0.25W, MF | | | |
| | C****4 | 59.02..5153 | 33 nF | 5%, 25V | PC | | R****30 | 57..11..3103 | 10 kOhm | 15%, 0.25W, MF | | | |
| | C****5 | 59.32..3120 | 22 uF | -20%, 25V | El | | R****31 | 57..11..3102 | 1 kOhm | 15%, 0.25W, MF | | | |
| | C****6 | 59.32..3120 | 22 uF | -20%, 25V | El | | R****32 | 57..11..4152 | 1.2 kOhm | 5%, 0.25W, MF | | | |
| | C****7 | 59..06..0101 | 100 pF | 10%, 25V | PE | | R****33 | 57..11..4152 | 1.5 kOhm | 5%, 0.25W, MF | | | |
| | C****8 | 59..06..0101 | 100 nF | 10%, 25V | PE | | R****34 | 1..710..463..00 | 100M-Controll | 5%, 0.25W, MF | | | |
| | C****9 | 59..34..4560 | 50 pF | 5%, 25V | Cer | | R****35 | 57..11..4152 | 1.5 kOhm | 5%, 0.25W, MF | | | |
| | C****10 | 59..32..471 | 470 pF | 5%, 25V | Cer | | R****36 | 57..11..4122 | 1.2 kOhm | 5%, 0.25W, MF | | | |
| | C****11 | 59..25..1101 | 100 nF | -20%, 4V | FI | | R****37 | 57..11..3102 | 1 kOhm | 15%, 0.25W, MF | | | |
| | C****12 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****38 | 57..34..6491 | 6.49 kOhm | 15%, 0.25W, MF | | | |
| | C****13 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****39 | 57..34..6491 | 6.49 kOhm | 15%, 0.25W, MF | | | |
| | C****14 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****40 | 57..11..3102 | 1 kOhm | 15%, 0.25W, MF | | | |
| | C****15 | 59..30..4220 | 22 uF | -20%, 16V | Ta | | R****41 | 57..11..3152 | 1.5 kOhm | 15%, 0.25W, MF | | | |
| | C****16 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****42 | 57..11..4223 | 22 kOhm | 5%, 0.25W, MF | | | |
| | C****17 | 59..25..4471 | 470 uF | -20%, 25V | FI | | R****43 | 57..39..1242 | 12.4 kOhm | 15%, 0.25W, MF | | | |
| | C****18 | 59..30..6109 | 1 uF | -20%, 25V | Ta | | R****44 | 57..39..6191 | 6.19 kOhm | 15%, 0.25W, MF | | | |
| | C****19 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****45 | 57..39..3091 | 3.09 kOhm | 15%, 0.25W, MF | | | |
| | C****20 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****46 | 57..39..6191 | 3.09 kOhm | 15%, 0.25W, MF | | | |
| | C****21 | 59..32..3103 | 10 nF | 20%, 25V | Cer | | R****47 | 57..37..6191 | 6.19 kOhm | 15%, 0.25W, MF | | | |
| | CTR****1 | 59..18..0108 | 5-40 pF | Var., Cap. | TK: -150 +/-350 nPH | | R****48 | 57..11..2223 | 22 kOhm | 5%, 0.25W, MF | | | |
| | D****1 | 50..04..0125 | 1N4448 | Si | | | R****49 | 57..39..1242 | 12.4 kOhm | 15%, 0.25W, MF | | | |
| | D****2 | 50..04..0123 | 1N4001 | Si | | | R****50 | 57..11..4103 | 10 kOhm | 5%, 0.25W, MF | | | |
| | D****3 | 50..04..0122 | 1N4001 | Si | | | R****51 | 57..11..4103 | 1 kOhm | 5%, 0.25W, MF | | | |
| | D****4 | 50..04..0125 | 1N4448 | Si | | | R****52 | 57..11..4472 | 44.7 kOhm | 5%, 0.25W, MF | | | |
| | D****5 | 50..04..0125 | 1N4448 | Si | | | R****53 | 57..11..4273 | 27 kOhm | 5%, 0.25W, MF | | | |
| | D****6 | 50..04..1108 | Z 2..7V | 5%, 0.4W | Si | | R****54 | 57..11..4154 | 150 kOhm | 5%, 0.25W, MF | | | |
| | D****7 | 50..04..1108 | Z 2..7V | 5%, 0.4W | Si | | R****55 | 57..11..4473 | 47 kOhm | 5%, 0.25W, MF | | | |
| | D****8 | 50..04..1101 | Z 2..7V | 5%, 0.4W | Si | | R****56 | 57..11..4153 | 15 kOhm | 5%, 0.25W, MF | | | |
| | D****9 | 50..04..0125 | 1N4448 | Si | | | R****57 | 57..11..4152 | 1.5 kOhm | 5%, 0.25W, MF | | | |
| | D****10 | 50..04..0125 | 1N4448 | Si | | | R****58 | 57..11..4104 | 100 kOhm | 5%, 0.25W, MF | | | |
| | D****11 | 50..04..0125 | 1N4448 | Si | | | R****59 | 57..11..4104 | 100 kOhm | 5%, 0.25W, MF | | | |
| | D****12 | 50..04..1123 | Z 4..7V | 5%, 0.4W | Si | | R****60 | 57..11..4222 | 2.2 kOhm | 5%, 0.25W, MF | | | |
| | D****13 | 50..04..3125 | 1N4448 | Si | | | R****61 | 57..11..4920 | 82 Ohm | 5%, 0.25W, MF | | | |
| | D****14 | 50..04..3125 | 1N4448 | Si | | | R****62 | 57..11..4820 | 82 Ohm | 5%, 0.25W, MF | | | |

S T U D E R R2/05/26 RW MICROPROCESSOR CONTROL MX 2 1.710.465,81

R....53 57.11.4681 680 Ohm 5%, 0.25W, CF
PAGE 1 STUDER 82/05/26 BH MICROPROCESSOR CONTROL MK 3 1-710-445-81 PAGE 4

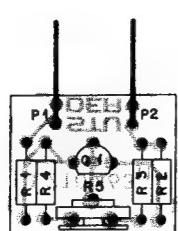
El=Electrolytic, Cer=Ceramic, PC=Polycarbonate,
 PE=Polyester, Si=Silicon,
 CF=Carbon Film, POF=Polymer, MFE=Metal Film,
 MANUFACTURER: F=FARFIELD, T=TEXAS INSTRUMENTS, M=MOTOROLA,
 S=STUDER, Si=SIGMATEK, Ra=RAYTHEON,
 G=GTE, H=HONEYWELL, B=BROWN & SHARPE

S T U D E R 82/05/26 AW MICROPROCESSOR CONTROL MK 2 1-710-665-81

ORIG B1/12/11 (01) 82/05/02

| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|----------|------------|-----------|-----------------------------|--------|
| Q.....5 | | 50.03-0340 | BC 337-25 | NPN, IC=800mA | |
| Q.....6 | | 50.03-0436 | BC 550B | NPN | |
| Q.....8 | | 50.03-0435 | BC 550B | NPN | |
| G.....9 | | 50.03-0351 | BC 327-25 | PNP, IC=800mA | |
| Q.....10 | | 50.03-0436 | BC 550B | NPN | |
| Q.....11 | | 50.03-0436 | BC 550B | NPN | |
| Q.....12 | | 50.03-0436 | BC 550B | NPN | |
| Q.....13 | | 50.03-0515 | BC 560B | PNP | |
| Q.....14 | | 50.03-0515 | BC 560B | PNP | |
| Q.....15 | | 50.03-0504 | BD 679 | NPN Power Darlington | |
| Q.....16 | | 50.03-0504 | BD 679 | NPN Power Darlington | |
| R.....1 | | 57.11-4193 | 15 kOhm | 5%, 0.25W, CF | |
| R.....2 | | 57.11-4472 | 4.7 kOhm | 5%, 0.25W, CF | |
| R.....3 | | 57.11-4472 | 4.7 kOhm | 5%, 0.25W, CF | |
| R.....4 | | 57.11-4472 | 4.7 kOhm | 5%, 0.25W, CF | |
| K.....5 | | 97.11-4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....6 | | 57.11-4472 | 24 kOhm | 5%, 0.25W, CF | |
| R.....7 | | 57.11-4474 | 470 kOhm | 5%, 0.25W, CF | |
| R.....8 | | 57.11-4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....9 | | 57.11-4474 | 470 kOhm | 5%, 0.25W, CF | |
| R.....10 | | 57.11-4474 | 470 kOhm | 5%, 0.25W, CF | |
| R.....11 | | 57.11-4333 | 33 kOhm | 5%, 0.25W, CF | |
| R.....12 | | 57.11-4333 | 33 kOhm | 5%, 0.25W, CF | |
| R.....13 | | 57.11-4472 | 47 kOhm | 5%, 0.25W, CF | |
| R.....14 | | 57.11-4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....15 | | 57.11-4273 | 27 kOhm | 5%, 0.25W, CF | |
| K.....16 | | 57.11-4273 | 27 kOhm | 5%, 0.25W, CF | |
| A.....17 | | 57.11-4104 | 100 kOhm | 5%, 0.25W, CF | |
| R.....18 | | 57.11-4181 | 180 Ohm | 5%, 0.25W, CF | |
| R.....20 | | 57.11-4181 | 180 Ohm | 5%, 0.25W, CF | |
| R.....21 | | 57.11-4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....22 | | 57.11-4681 | 600 Ohm | 5%, 0.25W, CF | |
| R.....23 | | 57.11-4681 | 10 Ohm | 5%, 0.25W, CF | |
| R.....24 | | 57.11-4681 | 680 Ohm | 5%, 0.25W, CF | |
| R.....25 | | 57.56-3100 | 10 Ohm | 5%, 0.25W, CF | |
| R.....26 | | 57.11-3479 | 4.7 Ohm | 1%, 0.25W, MF | |

WM=CONTROL PCB 1.710.463

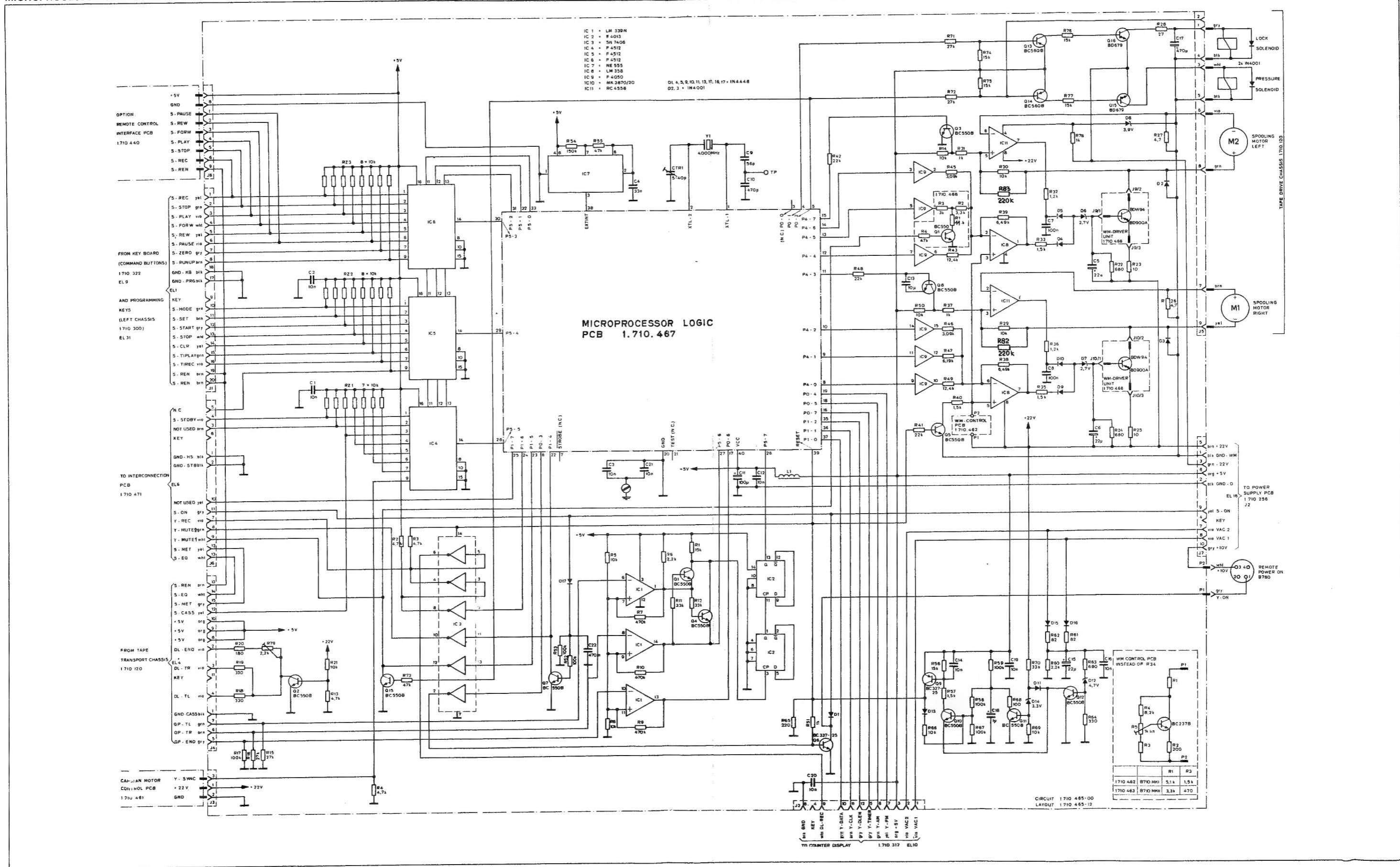


MF=Metal Film, PCF= Pot. Meter Carbon

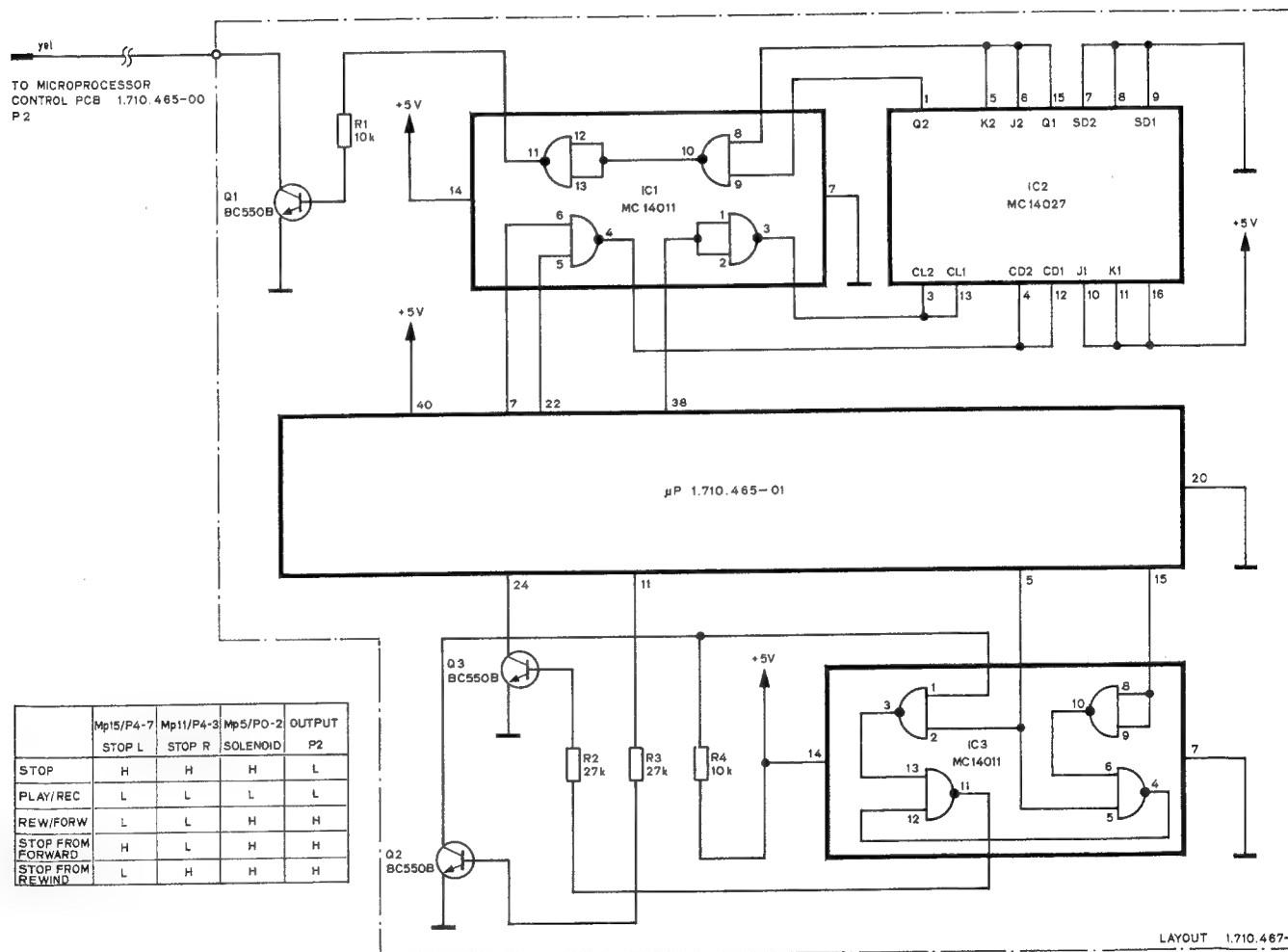
GRIG 6

STUDER 82/05/19 RW WM CONTROL PCB

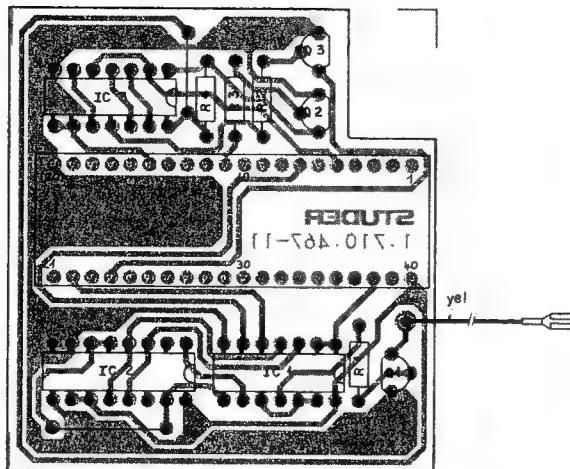
MICROPROCESSOR CONTROL PCB 1.710.465-00



MICROPROCESSOR LOGIC PCB 1.710.467



MICROPROCESSOR LOGIC PCB 1.710.467

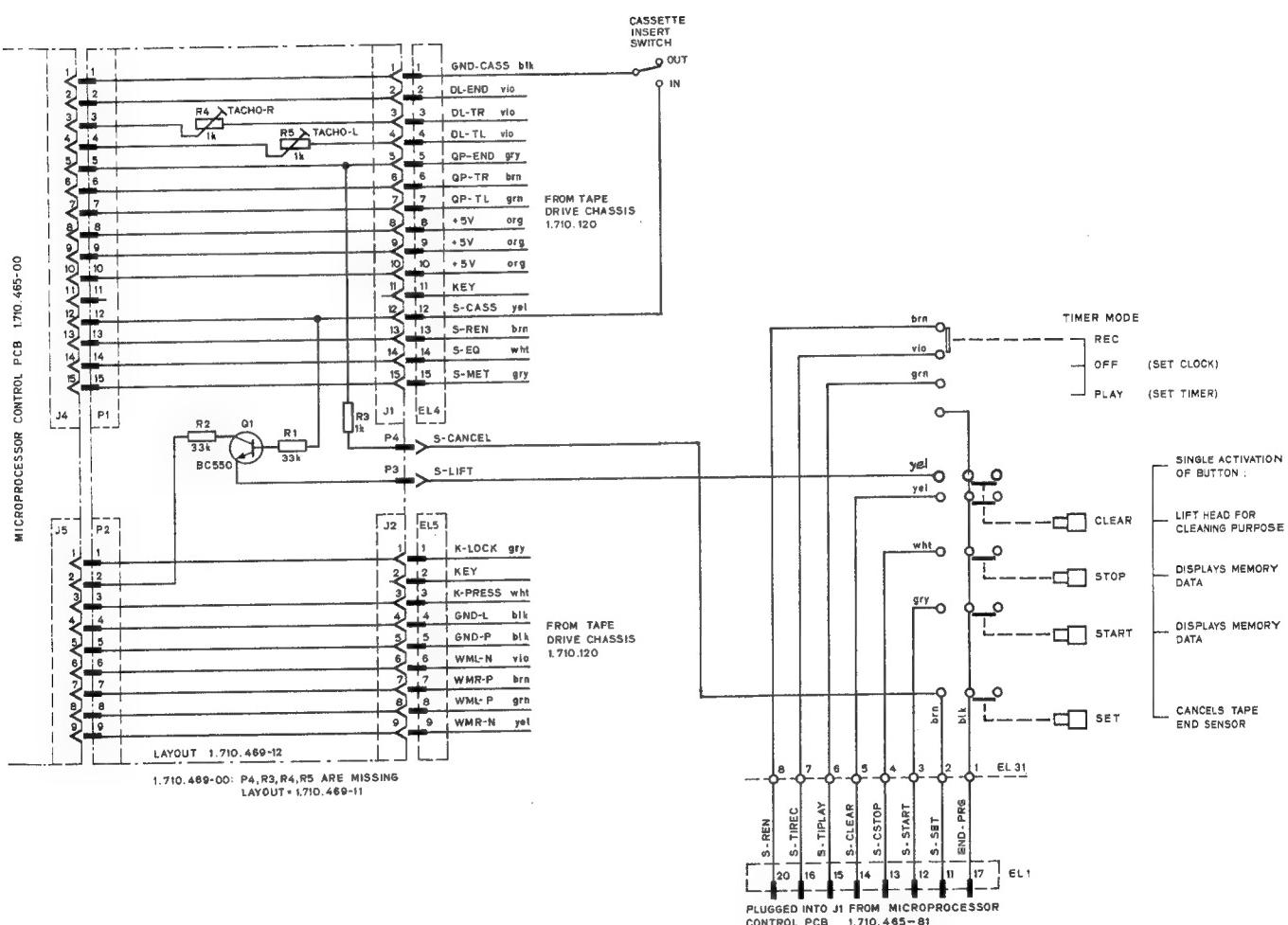


| INDI POS NO | PART NO | VALUE | SPECIFICATIONS/EQUIVALENT | |
|-------------|------------|----------|-------------------------------|---------------------|
| R 1 | 57.11.4703 | 10 kΩ | 5% | MFR |
| R 2 | 57.11.4273 | 27 kΩ | 5% | |
| R 3 | 57.11.4273 | 27 kΩ | 5% | |
| R 4 | 57.11.4102 | 10 kΩ | 5% | |
| Q 1 | 50.03.0436 | BC 550B | NPN | 1 BC 547B; BC 237 G |
| Q 2 | 50.03.0426 | BC 550B | NPN | 1 BC 547B; BC 237 B |
| Q 3 | 50.03.0436 | BC 550B | NPN | 1 BC 547B; BC 287 P |
| IC 1 | 50.07.0071 | MC 14011 | Quad 2-Input NAND Gate | |
| IC 2 | 50.07.0027 | MC 14027 | Dual JK -flip-flop | |
| IC 3 | 50.07.0071 | MC 14011 | Quad 2-Input NAND Gate | |
| X IC | 53.03.0758 | | 40-Pins 3-Wire Wrap IC-Socket | |

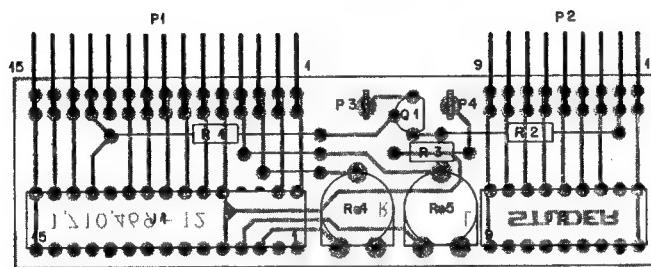
| INDI | DATE | NAME |
|---|----------|------|
| ④ | | |
| ③ | | |
| ② | | |
| ① | | |
| <input checked="" type="radio"/> 12-12-50 | 12-12-50 | |

STUDER *Intermittent 1950-2000* 1-210-232 PAGE 1 OF 1

HEAD LIFTING CIRCUIT 1.710.469-00/-81



HEAD LIFTING CIRCUIT 1.710.469-00/-81



| IND. | PDS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|----------|------------------------|-----------------------------|--------|
| J.....1 | 54.01.0243 | 15-Pole | CIS | | |
| J.....2 | 54.01.0212 | 9-Pole | CIS | | |
| P.....1 | 54.C1.0275 | 15-Pole | Pin-Strip | | AMP |
| P.....2 | 54.01.0270 | 9-Pole | Pin-Strip | | AMP |
| P.....3 | 54.02.0320 | | Flat-Pin | | |
| P.....4 | 54.02.0320 | | Flat-Pin | | |
| Q.....1 | 50.03.0436 | BC 550 | NPN | | |
| R.....1 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R.....2 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R.....3 | 57.11.5102 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....4 | 58.02.5102 | 1 kOhm | 20%, 0.15W, Pot., Line | | |
| R.....5 | 58.02.5102 | 1 kOhm | 20%, 0.15W, Pot., Line | | |

CF=Carbon Film

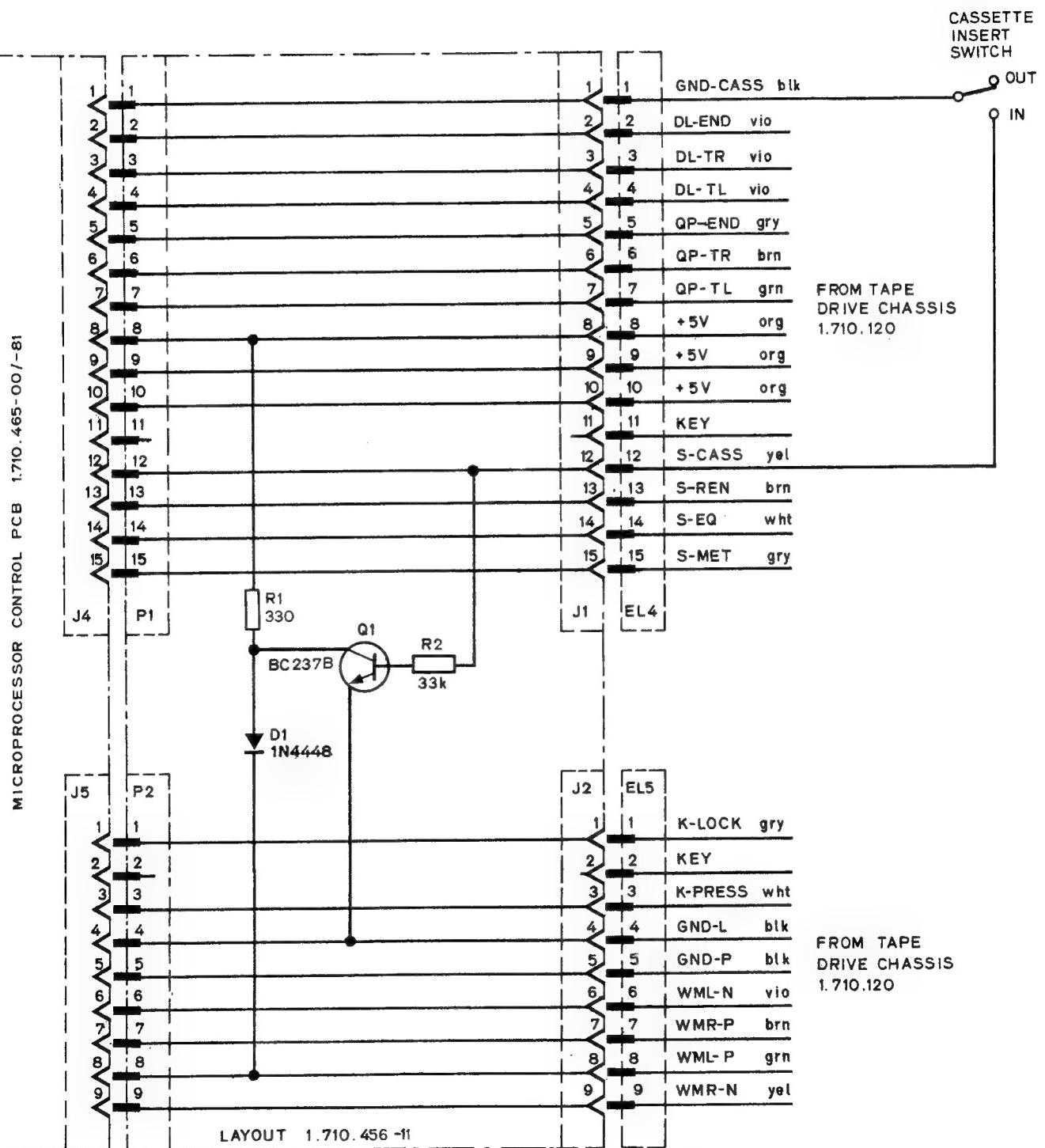
CRIG 81/08/20

STUDER 81/08/20 RW

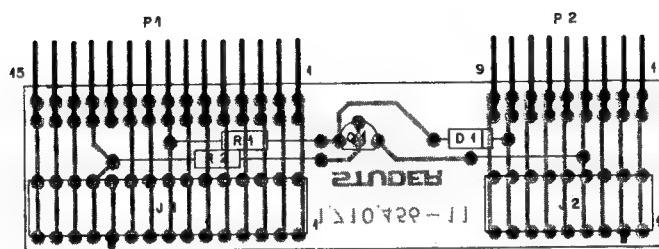
HEAD LIFTING CIRCUIT

1.710.469.81 PAGE 1

BACK TENSION PCB 1.710.456



BACK TENSION PCB 1.710.456



| INC. | PCS-Nr. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|----------|------------------|-----------------------------|--------|
| D.....1 | 50.04.0125 | 1N4448 | Any | | |
| J.....1 | 54.01.0243 | 15-Pole | CIS-Socket-Strip | | |
| J.....2 | 54.01.0212 | 9-Pole | CIS-Socket-Strip | | |
| P.....1 | 54.01.0275 | 15-Pole | CIS-Pin-Strip | AMP | |
| P.....2 | 54.01.0220 | 9-Pole | Cis-Pin-Strip | AMP | |
| O.....1 | 50.03.0436 | BC 237 E | NPN | | |
| R.....1 | 57.11.4331 | 330 Ohm | 5%,0±25%HF | | |
| R.....2 | 57.11.4333 | 33 kOhm | 5%,0±25%HF | | |

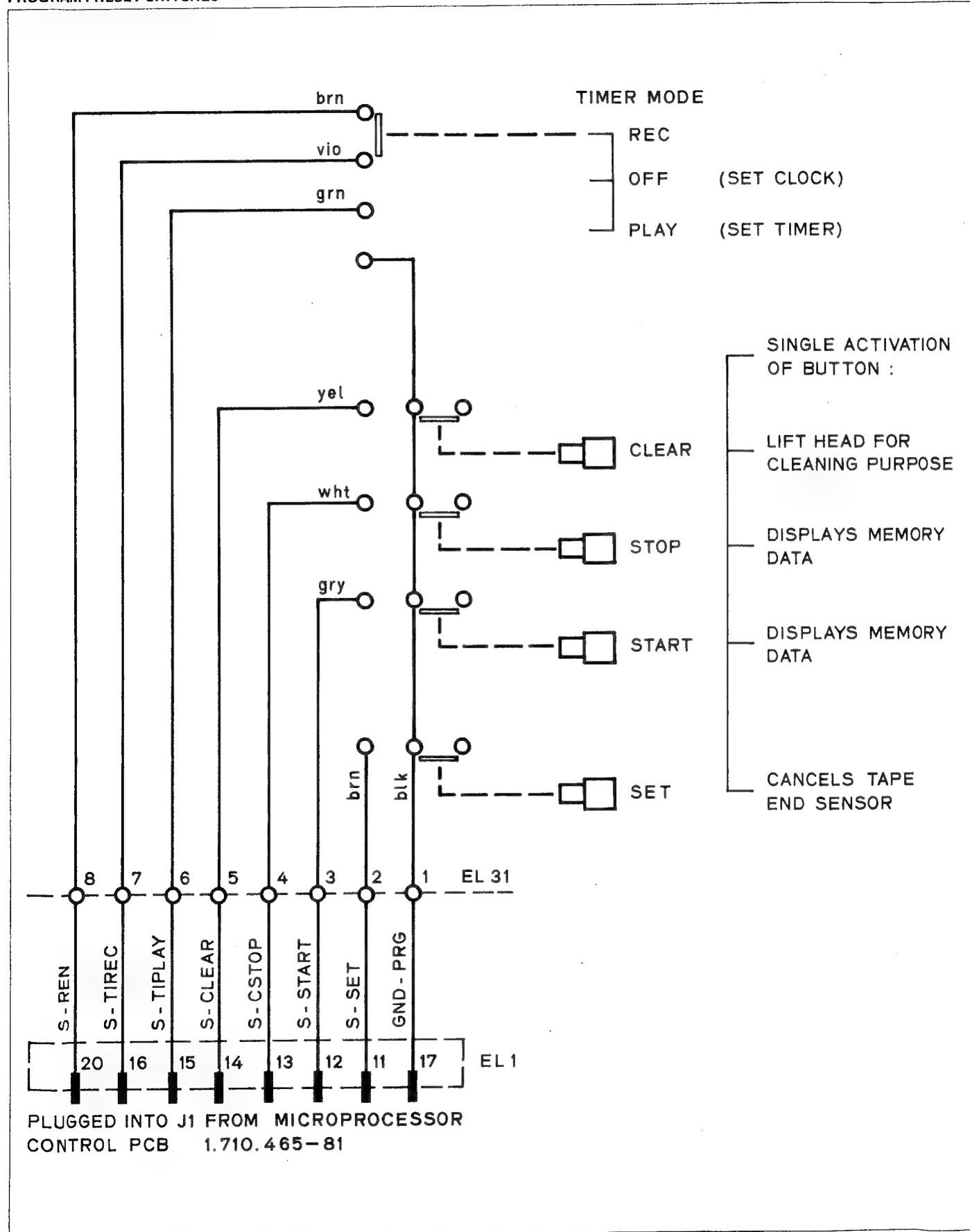
MF=Metal Film,

DATE 02/06/10

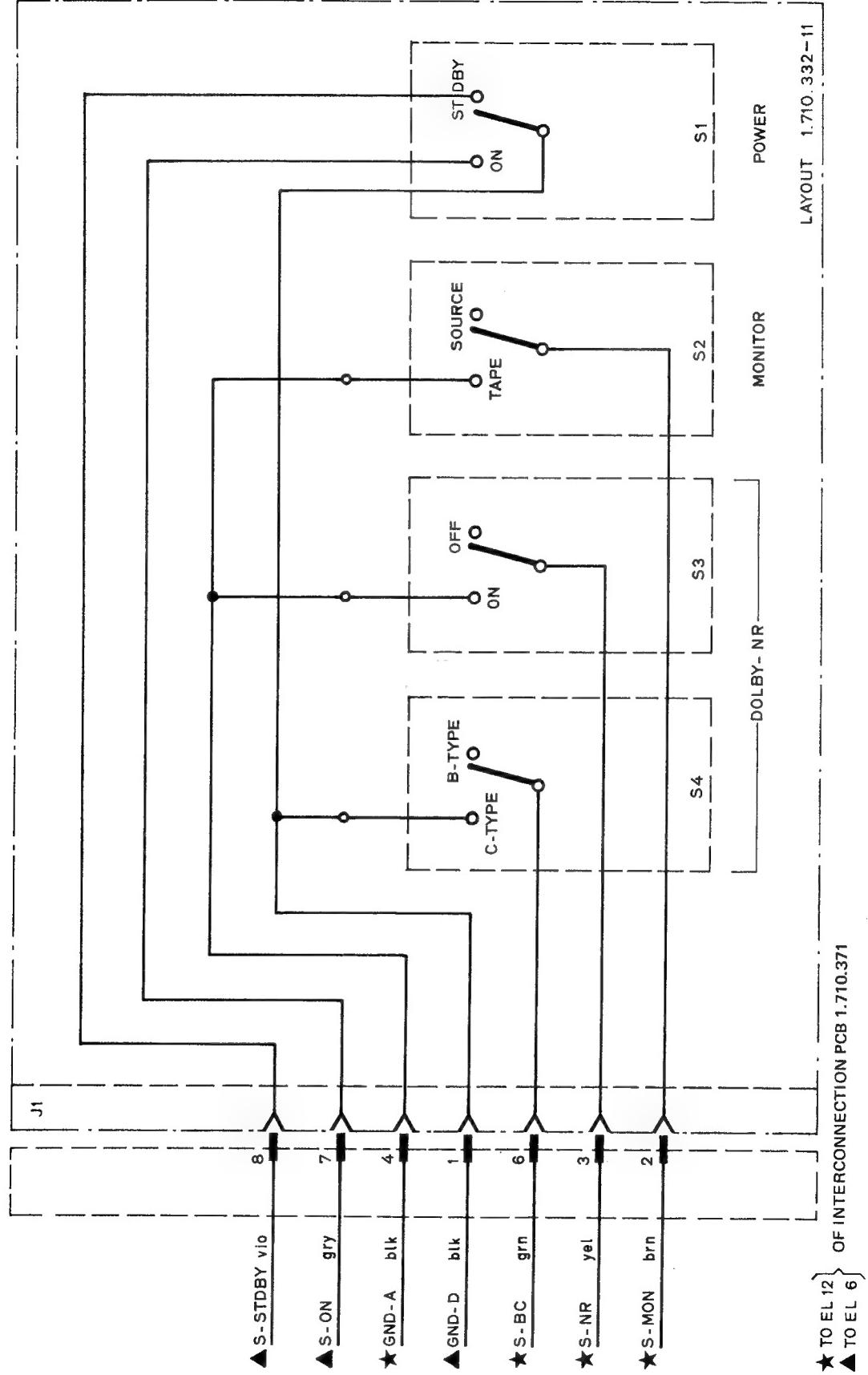
S T U D E R 82/06/10 RW BACK TENSION PCB

1.710.456.00 PAGE 1

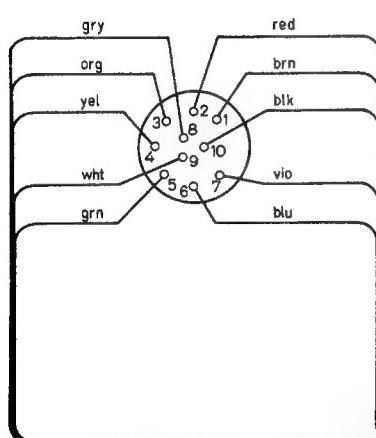
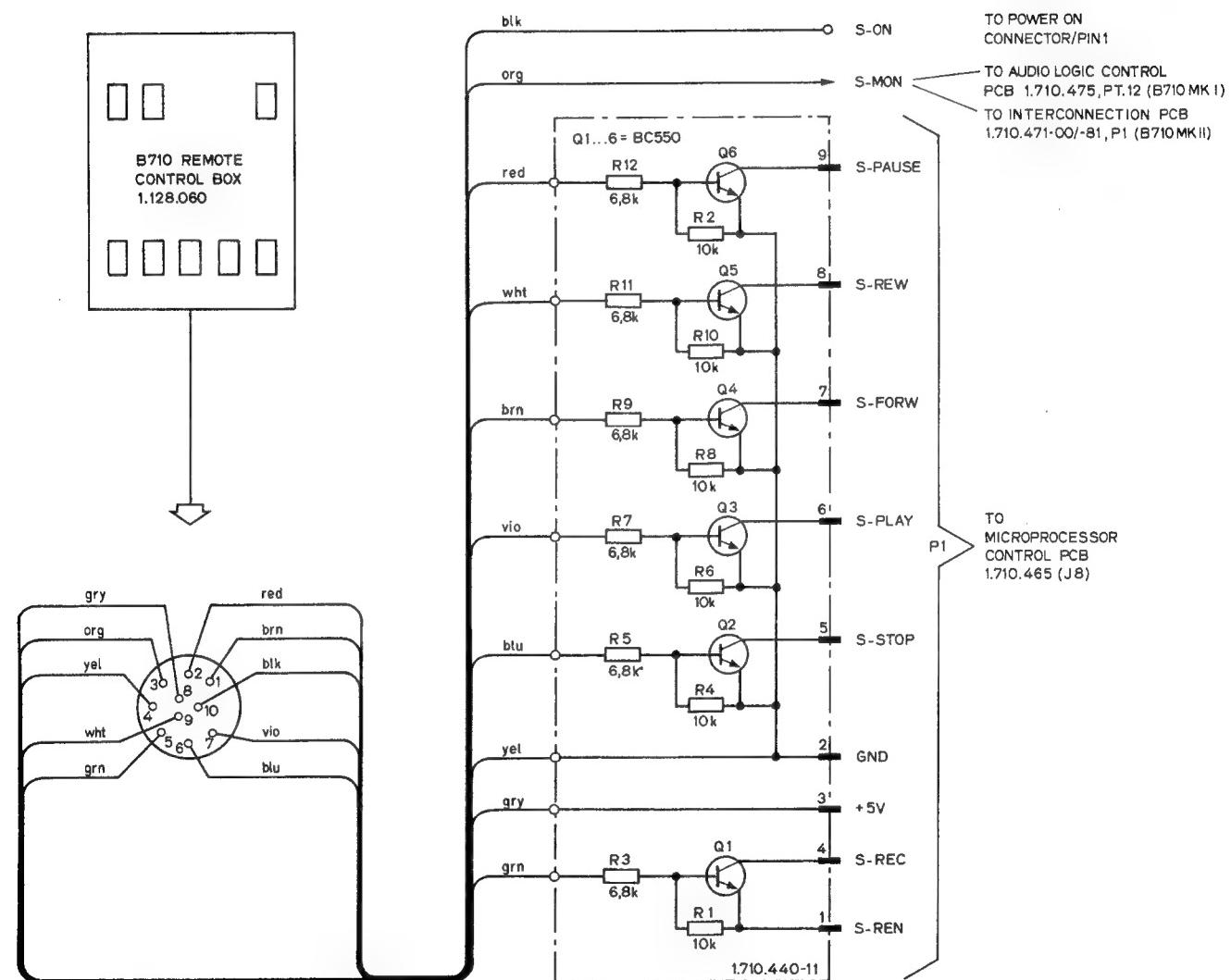
PROGRAM PRESET SWITCHES



TOGGLE SWITCHES PCB 1.710.332



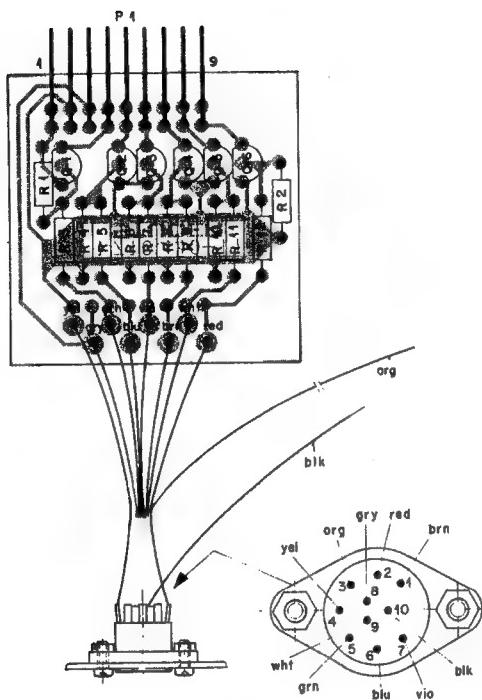
REMOTE CONTROL INTERFACE 1.710.441/442



FEATURING:
 - STANDARD TAPE TRANSPORT + REPEAT FUNCTION
 - MONITORING (SOURCE / TAPE)

REMOTE CONTROL INTERFACE INSTALLATION KIT TO B710 MKI 1.710.441-00
REMOTE CONTROL INTERFACE/FACTORY MOUNTED IN B710 MKII 1.710.442-00

REMOTE CONTROL INTERFACE 1.710.441/442



| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|--------------|----------|-------|-----------------------------|--------|----------|--------------|----------|-------|-----------------------------|--------|
| J.....1 | 54.02.0315 | 10-Pole | | DIN Socket | | J.....1 | 54.02.0315 | 10-Pole | | DIN Socket | |
| MP....1 | 1.710.440.11 | | | RC INTERFACE PCB | St | MP....1 | 1.710.440.11 | | | RC INTERFACE PCB | St |
| MP....2 | 1.710.440.93 | | | CABLE HARNESS | St | MP....2 | 1.710.440.93 | | | CABLE HARNESS | St |
| P.....1 | 54.01.0429 | 9-POLE | | PIN-STRIP | AMP | P.....1 | 54.01.0429 | 9-POLE | | PIN-STRIP | AMP |
| Q.....1 | 50.03.0436 | BC 237 | | NPN | | Q.....1 | 50.03.0436 | BC 237 | | NPN | |
| Q.....2 | 50.03.0436 | BC 237 | | NPN | | Q.....2 | 50.03.0436 | BC 237 | | NPN | |
| Q.....3 | 50.03.0436 | BC 237 | | NPN | | Q.....3 | 50.03.0436 | BC 237 | | NPN | |
| Q.....4 | 50.03.0436 | BC 237 | | NPN | | Q.....4 | 50.03.0436 | BC 237 | | NPN | |
| Q.....5 | 50.03.0436 | BC 237 | | NPN | | Q.....5 | 50.03.0436 | BC 237 | | NPN | |
| Q.....6 | 50.03.0436 | BC 237 | | NPN | | Q.....6 | 50.03.0436 | BC 237 | | NPN | |
| R.....1 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | | R.....1 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | |
| R.....2 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | | R.....2 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | |
| R.....3 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....3 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |
| R.....4 | 57.11.4682 | 10 kOhm | 5% | 0.25W, CF | | R.....4 | 57.11.4682 | 10 kOhm | 5% | 0.25W, CF | |
| R.....5 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....5 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |
| R.....6 | 57.11.4682 | 10 kOhm | 5% | 0.25W, CF | | R.....6 | 57.11.4682 | 10 kOhm | 5% | 0.25W, CF | |
| R.....7 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....7 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |
| R.....8 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | | R.....8 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | |
| R.....9 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....9 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |
| R.....10 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | | R.....10 | 57.11.4103 | 10 kOhm | 5% | 0.25W, CF | |
| R.....11 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....11 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |
| R.....12 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | | R.....12 | 57.11.4682 | 6.8 kOhm | 5% | 0.25W, CF | |

CF=Carbon Film
MANUFACTURER: St=STUDER+

ORIG 81/10/27

STUDER 82/09/21 RM RC INTERFACE KIT

1.710.441.00 PAGE 1

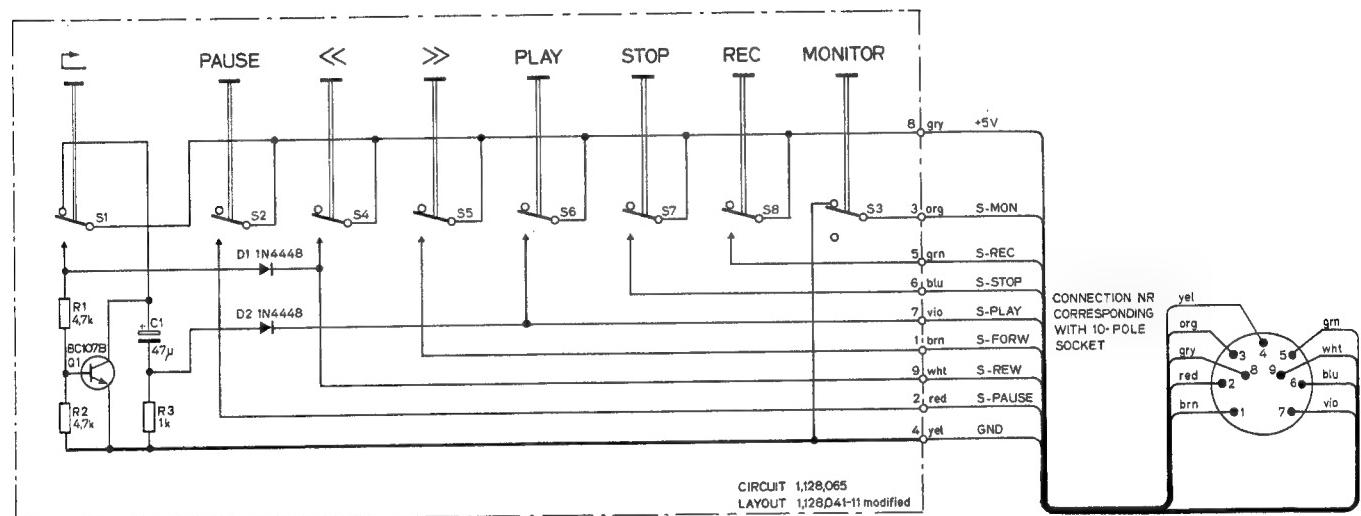
CF=Carbon Film
MANUFACTURER: St=STUDER,

ORIG 82/01/06

STUDER 82/09/21 RM RC INTERFACE

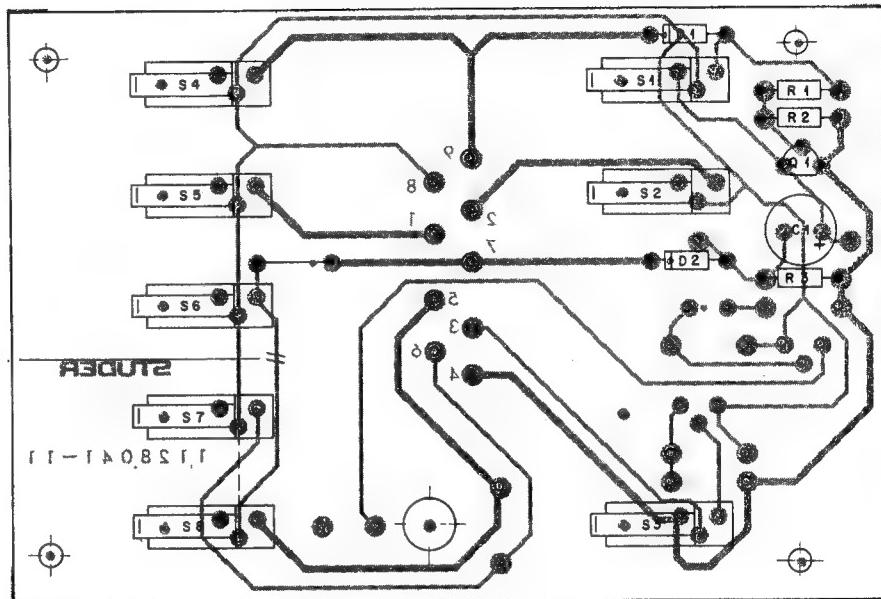
1.710.442.00 PAGE 1

REMOTE CONTROL PCB 1.128.065



REMOTE CONTROL PCB 1.128.065

PRINTED CONDUCTOR INTERRUPTED



| INC. | PES. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|------------|-------|-----------------------------|--------|
| C.....1 | | 59.22.6470 | 47 uF | -10% 25V, E1 | |
| D.....1 | 50.04.0125 | IN4446 | | | any |
| D.....2 | 50.04.0125 | IN4448 | | | any |
| Q.....1 | 50.03.0436 | BC 107B | | NPN | |
| R.....1 | 57.11.4472 | 4.7 kOhm | | 5%, 0.25W, CF | |
| R.....2 | 57.11.4472 | 4.7 kOhm | | 5%, 0.25W, CF | |
| R.....3 | 57.11.4102 | 1 kOhm | | 5%, 0.25W, CF | |
| S.....1 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....2 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....3 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....4 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....5 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....6 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....7 | 55.99.0139 | 1xU | | MICROSWITCH AG | |
| S.....8 | 55.99.0139 | 1xU | | MICROSWITCH AG | |

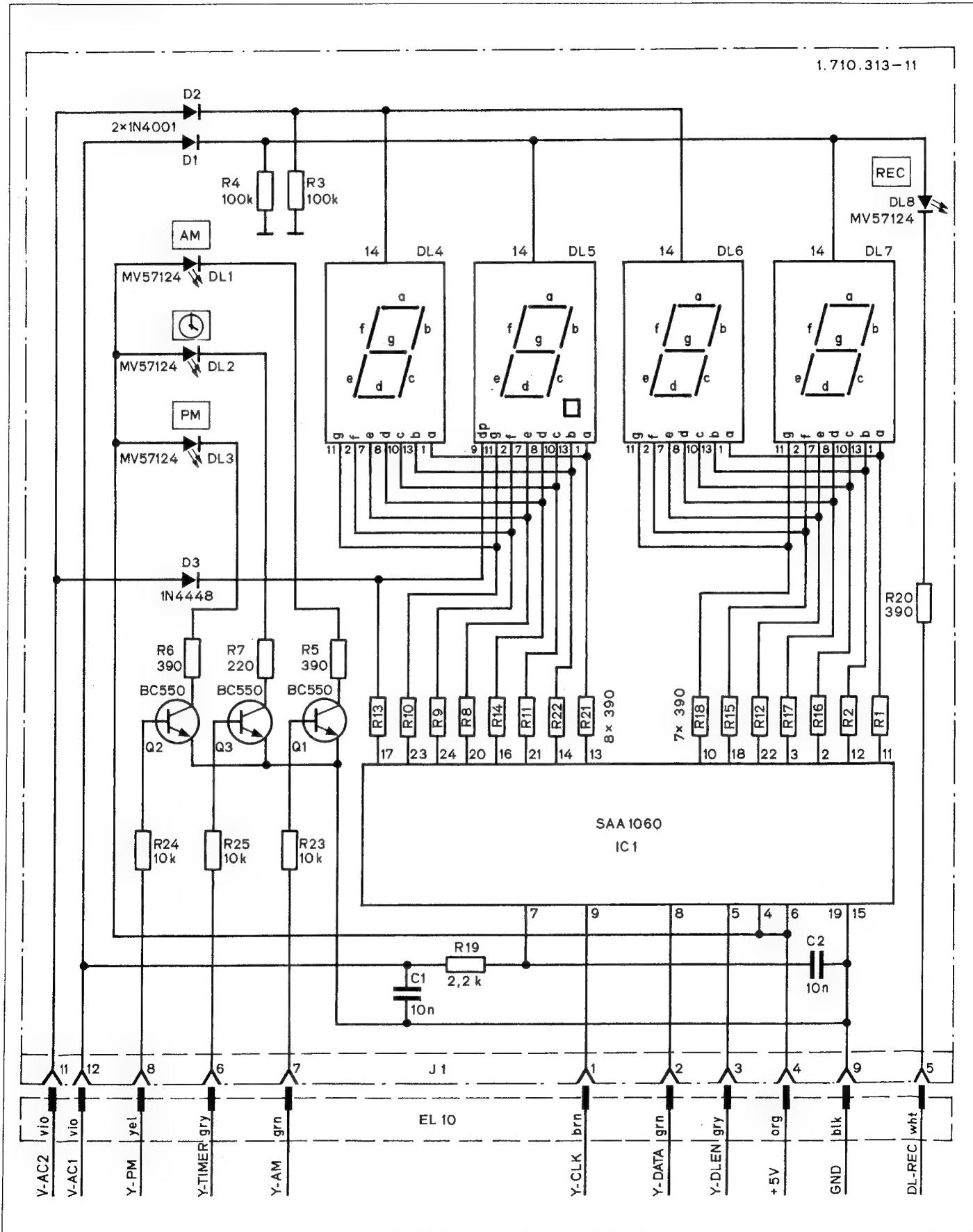
E1=Electrolytic,
CF=Carbon Film

CRIG B2/C1/14

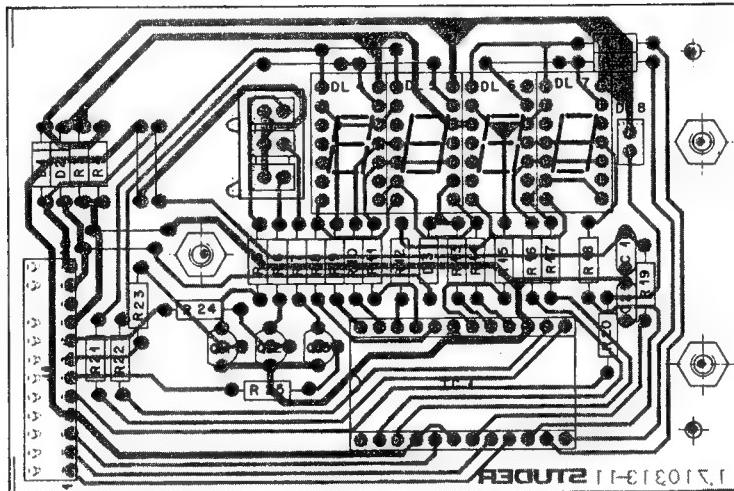
STUDER 02/01/14 RM REMOTE CONTROL

1.128.065.00 PAGE 1

COUNTER DISPLAY PCB 1.710.313



COUNTER DISPLAY PCB 1.710.313



| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|----------|-----------------------|-----------------------------|--------|----------|------------|----------|-------------|-----------------------------|--------|
| C.....1 | 59.32.3103 | 10 nF | 20% | Cer | | R.....14 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| C.....2 | 59.32.3103 | 10 nF | 20% | Cer | | R.....15 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| D.....1 | 50.04.0122 | IN4001 | | Si | | R.....16 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| D.....2 | 50.04.0122 | IN4001 | | Si | | R.....17 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| D.....3 | 50.04.0125 | IN4448 | | Si | | R.....18 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| DL....1 | 50.04.2119 | MV 57124 | 2-4 mCd E 20mA | GI | | R.....19 | 57.11.4391 | 2.2 kOhm | 5% 0.25W CF | | |
| DL....2 | 50.04.2119 | MV 57124 | 2-4 mCd E 20mA | GI | | R.....20 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| DL....3 | 50.04.2119 | MV 57124 | 2-4 mCd E 20mA | GI | | R.....21 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| DL....4 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R.....22 | 57.11.4391 | 390 Ohm | 5% 0.25W CF | | |
| DL....5 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R.....23 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| DL....6 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R.....24 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| DL....7 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R.....25 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| DL....8 | 50.04.2119 | MV 57124 | 2-4 mCd E 20mA | GI | | | | | | | |
| IC....1 | 50.13.0103 | SAA 1060 | | PH | | | | | | | |
| J....1 | 54.01.0236 | 12-Pole | | C15-Socket-Strip | | | | | | | |
| O....1 | 50.03.0497 | BC 550C | | NPN | | | | | | | |
| O....2 | 50.03.0497 | BC 550C | | NPN | | | | | | | |
| O....3 | 50.03.0497 | BC 550C | | NPN | | | | | | | |
| R....1 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....2 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....3 | 57.11.4391 | 100 kOhm | 5% | 0.25W CF | | | | | | | |
| R....4 | 57.11.4104 | 100 kOhm | 5% | 0.25W CF | | | | | | | |
| R....5 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....6 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....7 | 57.11.4221 | 220 Ohm | 5% | 0.25W CF | | | | | | | |
| R....8 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....9 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....10 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....11 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....12 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |
| R....13 | 57.11.4391 | 390 Ohm | 5% | 0.25W CF | | | | | | | |

STUDER 81/12/09 RW COUNTER DISPLAY MK 2

1.710.313.00 PAGE 1

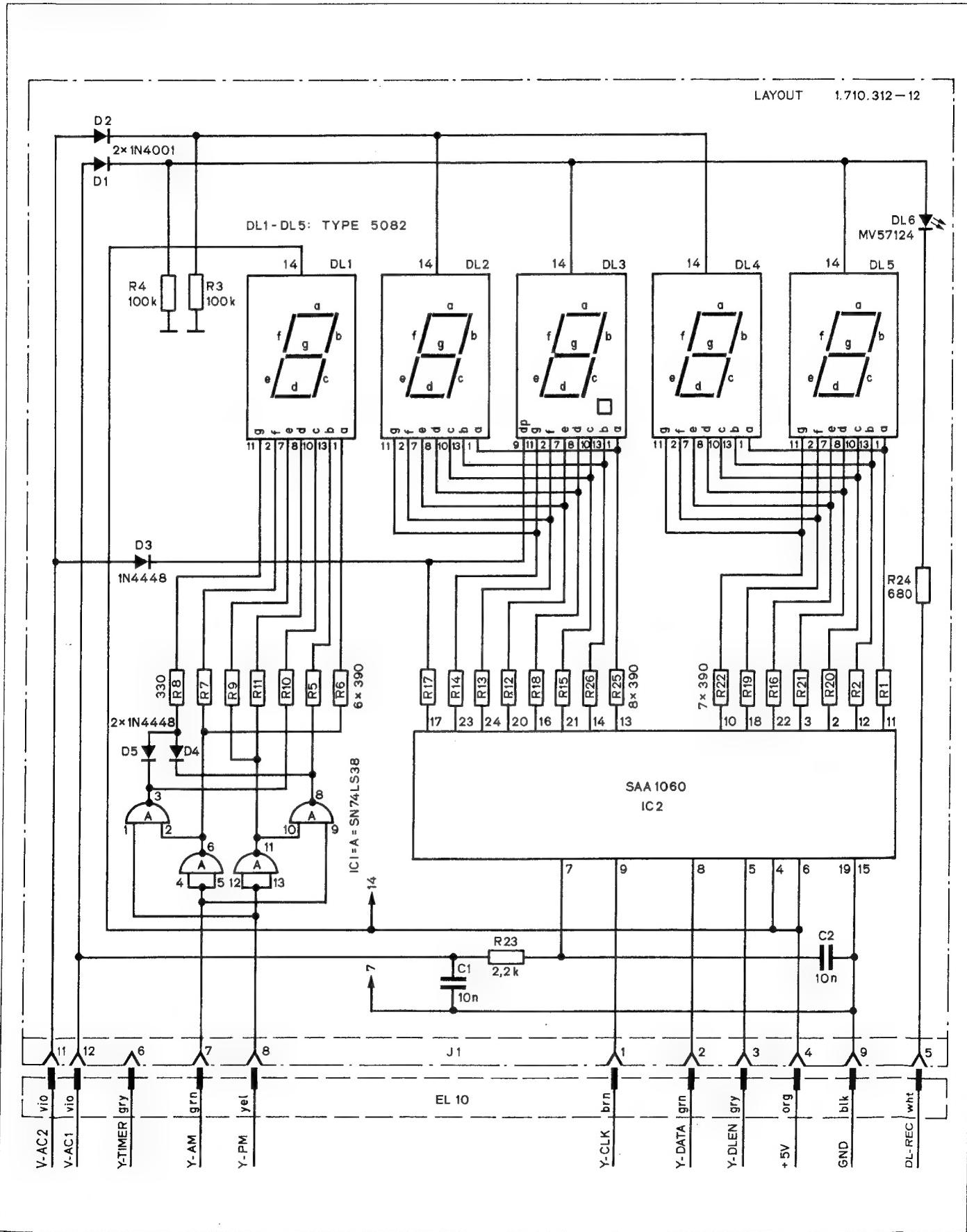
STUDER 81/12/09 RW COUNTER DISPLAY MK 2

1.710.313.00 PAGE 2

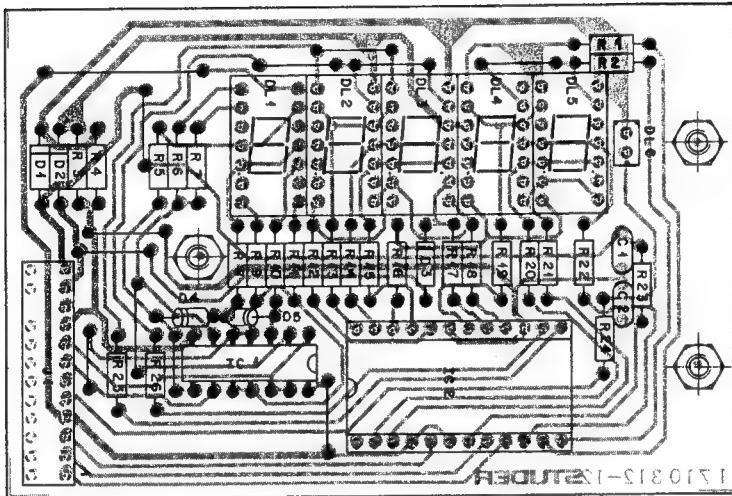
Cer=Ceramic, Si=Silicon,
CF=CARBON FILM
MANUFACTURER: GI=General Instruments, PH=Philips,
HP=Hewlett-Packard;

ORIG 81/12/09

COUNTER DISPLAY PCB 1.710.312

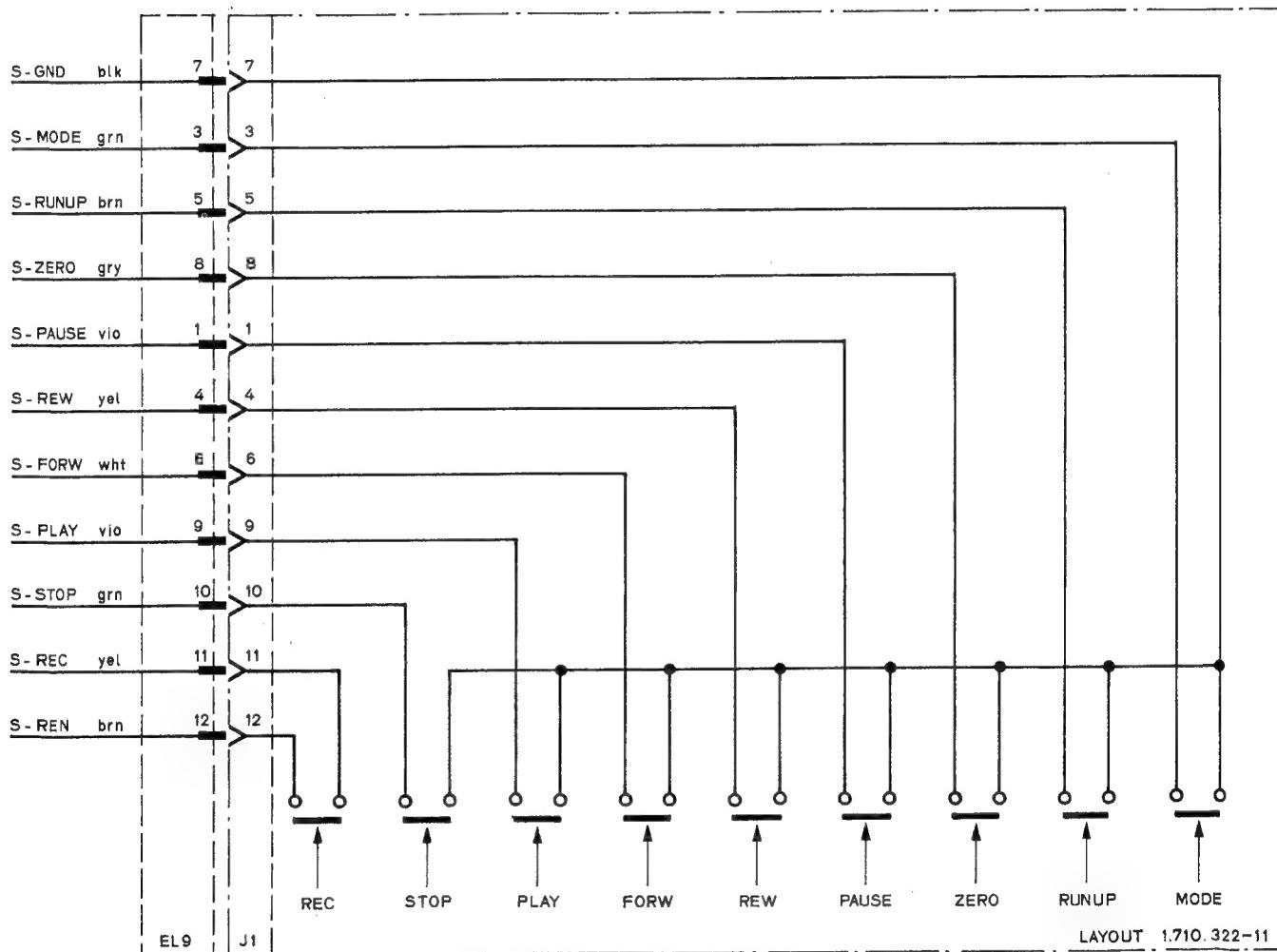


COUNTER DISPLAY PCB 1.710.312

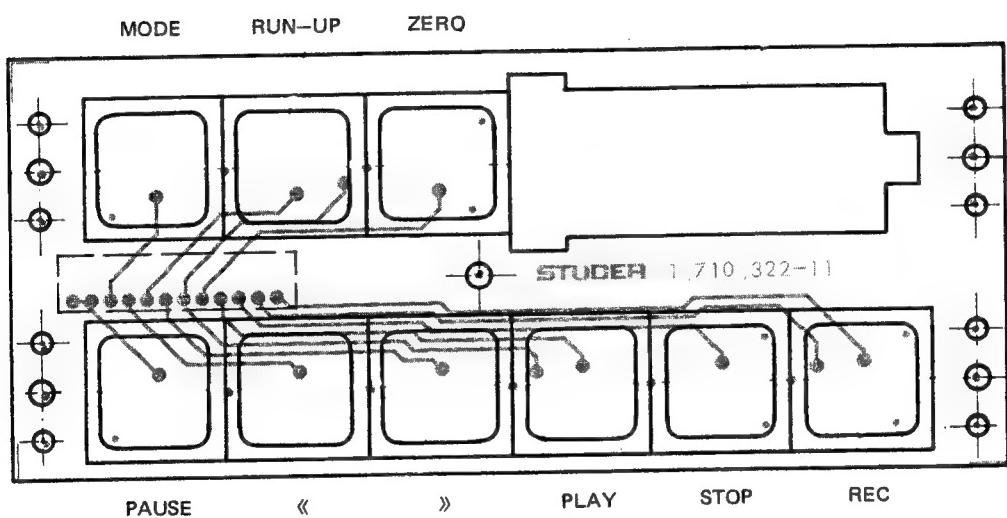


| IND. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|--|------------|----------|-----------------------|-----------------------------|--------|----------|------------|----------|---------------|-----------------------------|--------|
| C****.1 | 59.32+3103 | 10 nF | 20% | Cer | | R****.17 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| C****.2 | 59.32+3103 | 10 nF | 20% | Cer | | R****.18 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| D****.1 | 50.04+0122 | IN4001 | | Si | | R****.19 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| D****.2 | 50.04+0122 | IN4001 | | Si | | R****.20 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| D****.3 | 50.04+0125 | IN444B | | Si | | R****.21 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| D****.4 | 50.04+0125 | IN444B | | Si | | R****.22 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| D****.5 | 50.04+0125 | IN444B | | Si | | R****.23 | 57.11.4391 | 2.2 kOhm | 5%, 0.25W, CF | | |
| D****.6 | 50.04+0125 | IN444B | | Si | | R****.24 | 57.11.4681 | 680 Ohm | 5%, 0.25W, CF | | |
| DL****.1 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R****.25 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| DL****.2 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | R****.26 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| DL****.3 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | | | | | | |
| DL****.4 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | | | | | | |
| DL****.5 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | | | | | | |
| DL****.6 | 73.01.0122 | 5082 | 7 Segment LED Display | HP | | | | | | | |
| DL****.7 | 50.04+2119 | MV 57124 | 2+4 mcd & 20mA | GI | | | | | | | |
| IC****.1 | 50.06+0038 | 74 LS 38 | L5-TTL | | | | | | | | |
| IC****.2 | 50.13.0103 | SAA 1050 | | PH | | | | | | | |
| J****.1 | 54.01.0236 | 12-Pole | C15-Socket-Strip | | | | | | | | |
| R****.1 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.2 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.3 | 57.11.4391 | 100 kOhm | 5%, 0.25W, CF | | | | | | | | |
| R****.4 | 57.11.4391 | 100 kOhm | 5%, 0.25W, CF | | | | | | | | |
| R****.5 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.6 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.7 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.8 | 57.11.4391 | 330 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.9 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.10 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.11 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.12 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.13 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.14 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.15 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.16 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| R****.17 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | | | | | | | |
| Cer=Ceramic, Si=Silicon, CF=CARBON FILM, MANUFACTURER: GI=General Instruments, PH=Hewlett-Packard, CRIG 81/C2/17 | | | | | | | | | | | |

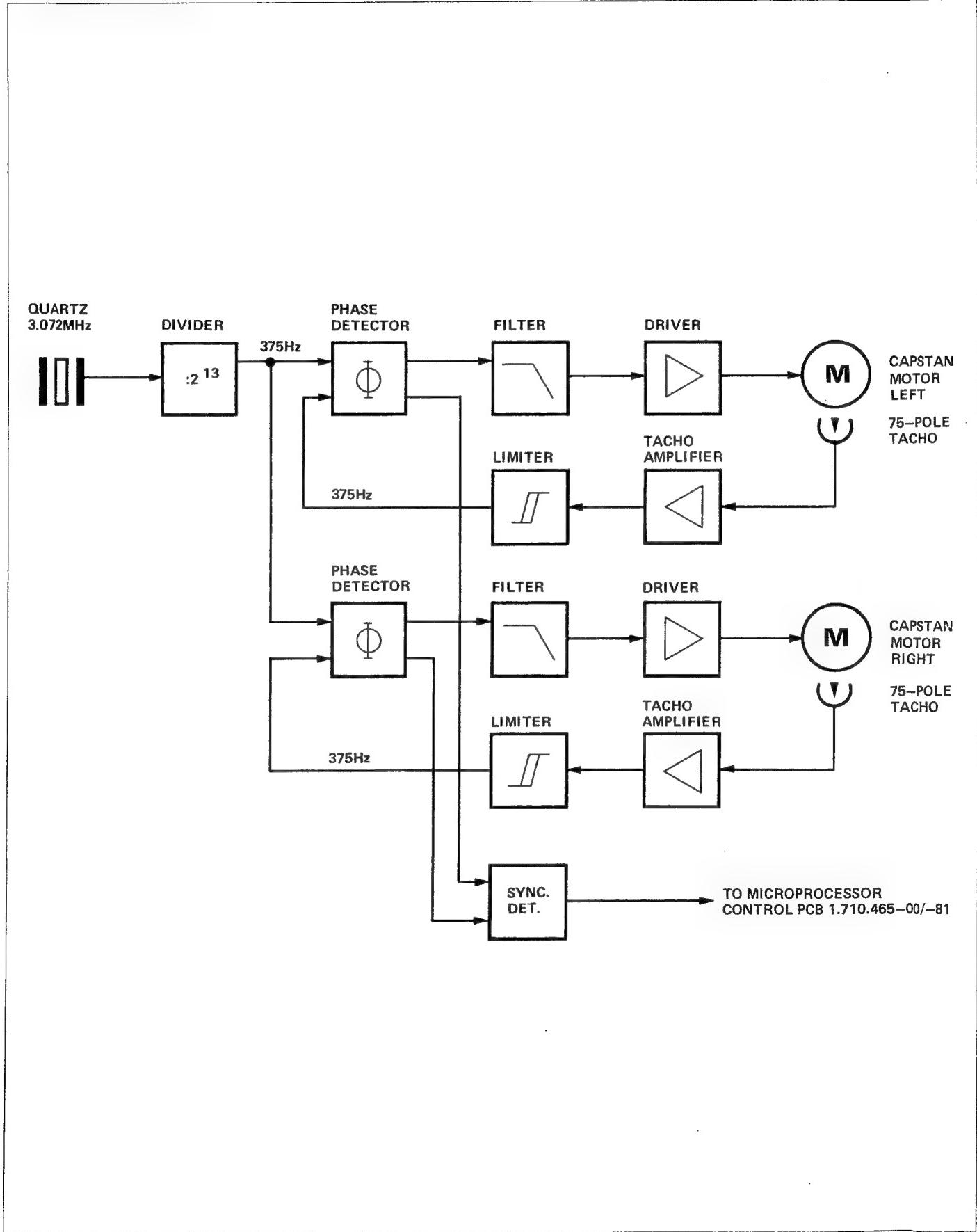
KEYBOARD 1.710.322

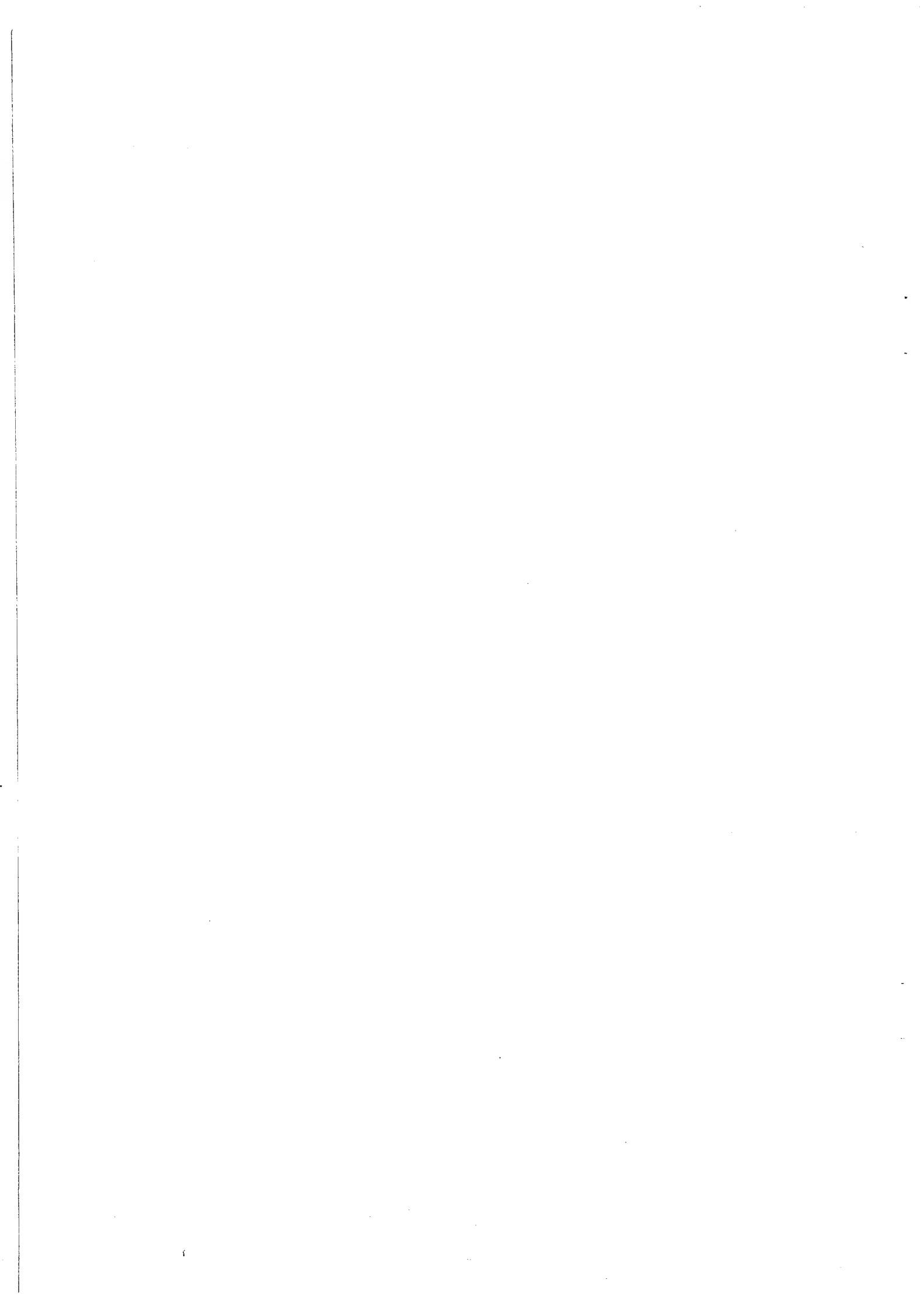


KEYBOARD 1.710.322

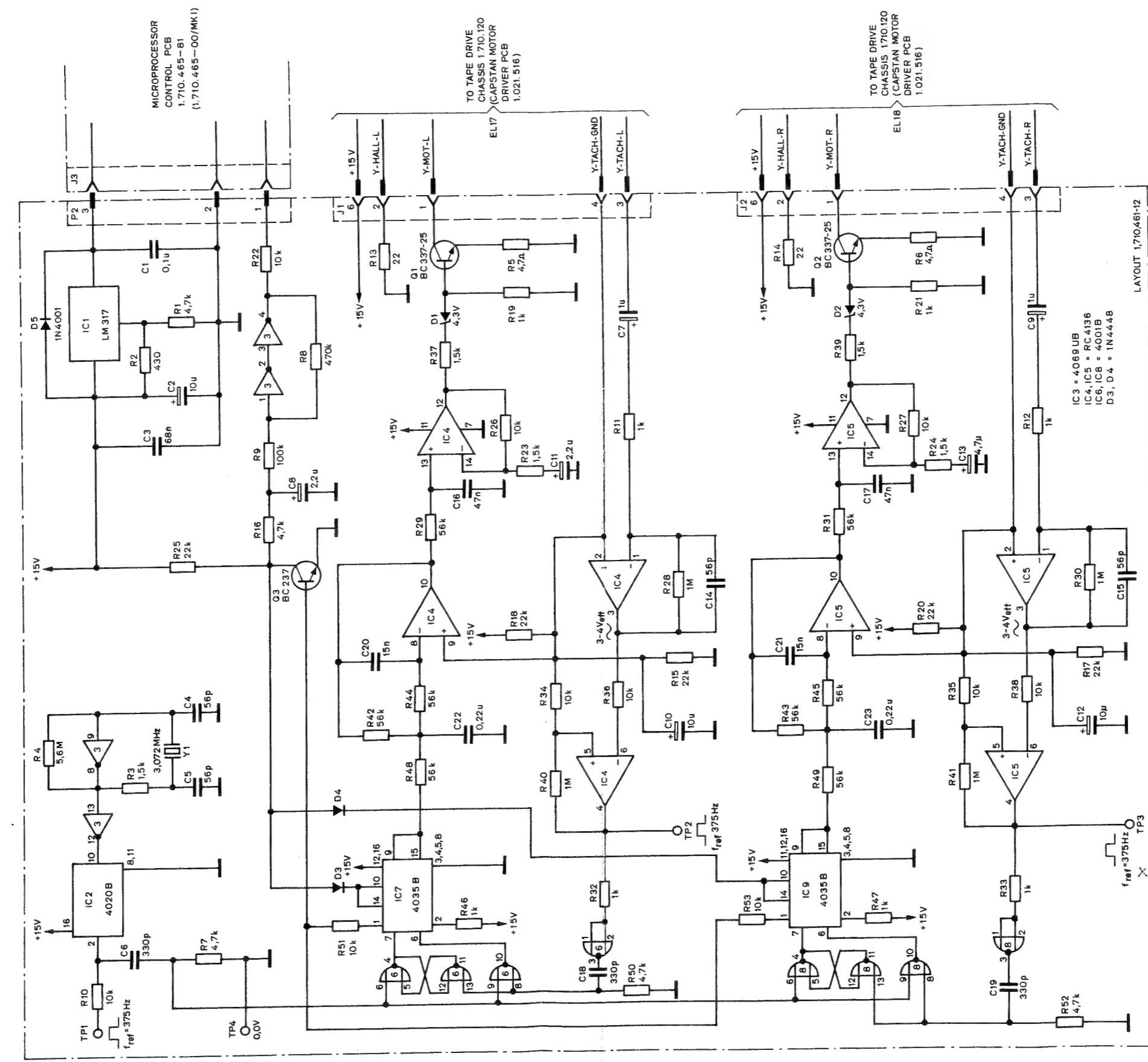


CAPSTAN MOTOR CONTROL BLOCKDIAGRAM

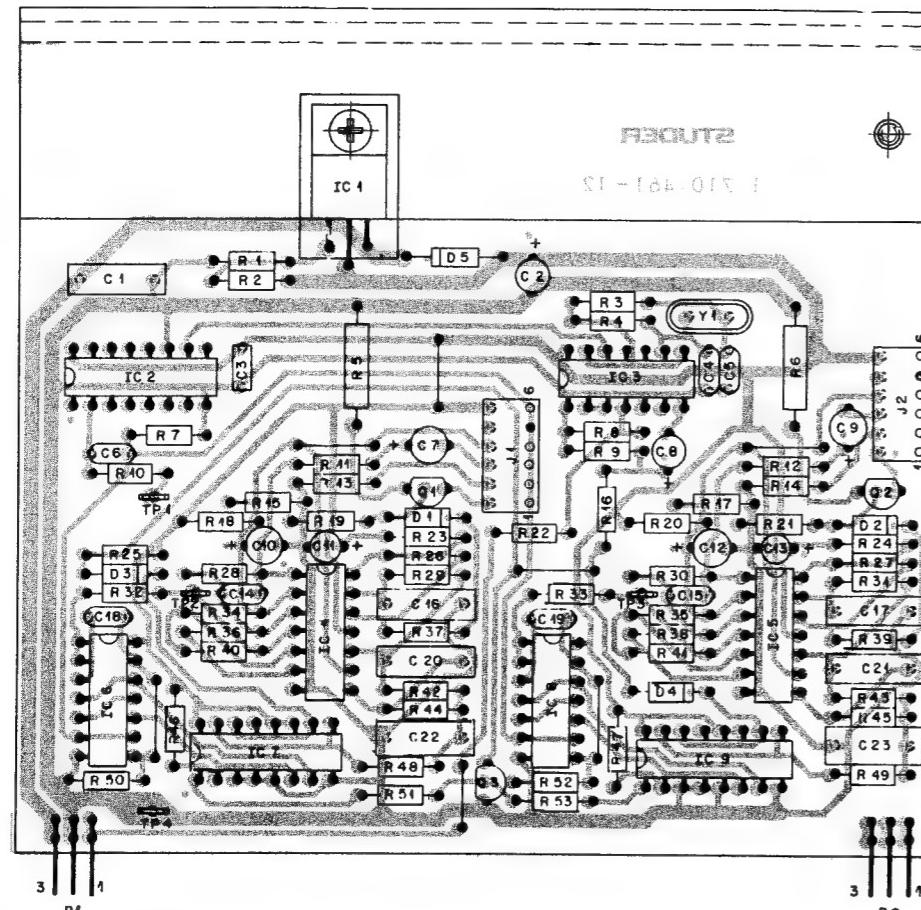




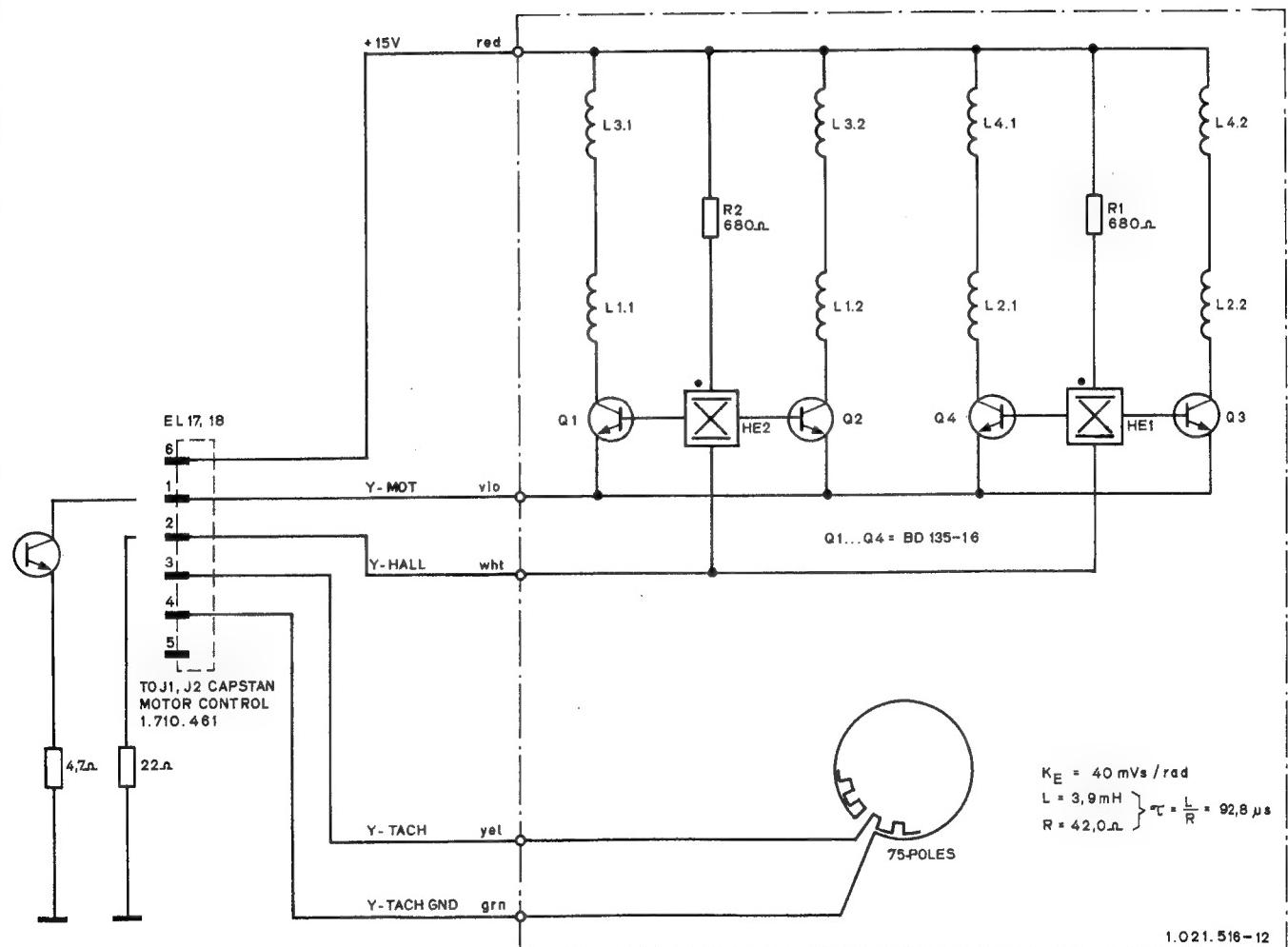
CAPSTAN MOTOR CONTROL PCB 1.710.461



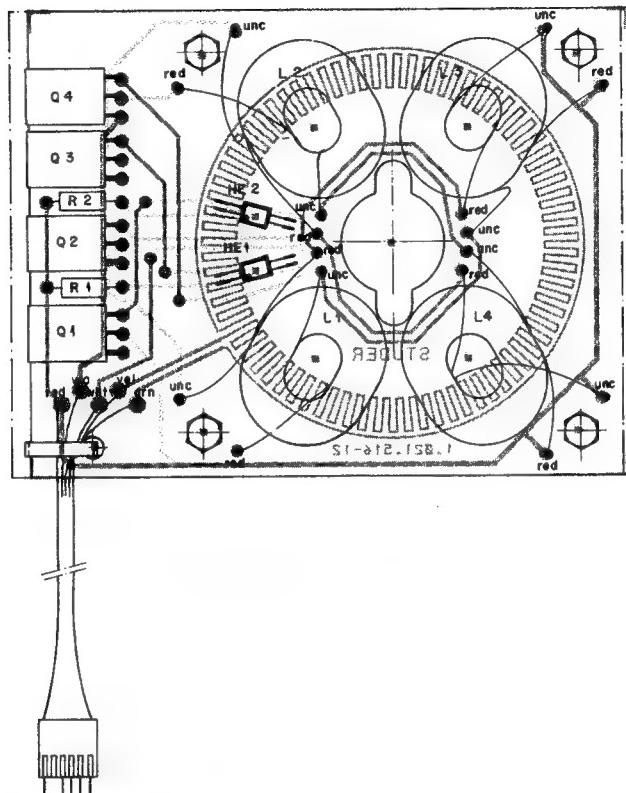
CAPSTAN MOTOR CONTROL PCB 1.710.461



CAPSTAN MOTOR DRIVER PCB 1.021.516



CAPSTAN MOTOR DRIVER PCB 1.021.516



| INC. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|--------|--------------|-----------|--------------|-----------------------------|--------|
| HE***1 | 50-99.0136 | | Hall-Element | | S |
| HE***2 | 50-99.0136 | | Hall-Element | | S |
| L***1 | 1.021.516.02 | | Stator-Coil | | S |
| L***2 | 1.021.516.02 | | Stator-Coil | | S |
| L***3 | 1.021.516.02 | | Stator-Coil | | S |
| L***4 | 1.021.516.02 | | Stator-Coil | | S |
| Q***1 | 50-C3.0495 | BD 135-16 | NPN | | |
| Q***2 | 50-C3.0495 | BD 135-16 | NPN | | |
| Q***3 | 50-C3.0495 | BD 135-16 | NPN | | |
| Q***4 | 50-C3.0495 | EC 135-16 | NPN | | |
| R***1 | 57-11.3681 | 680 Ohm | 1% 0.25W, MF | | |
| R***2 | 57-11.3681 | 680 Ohm | 1% 0.25W, MF | | |

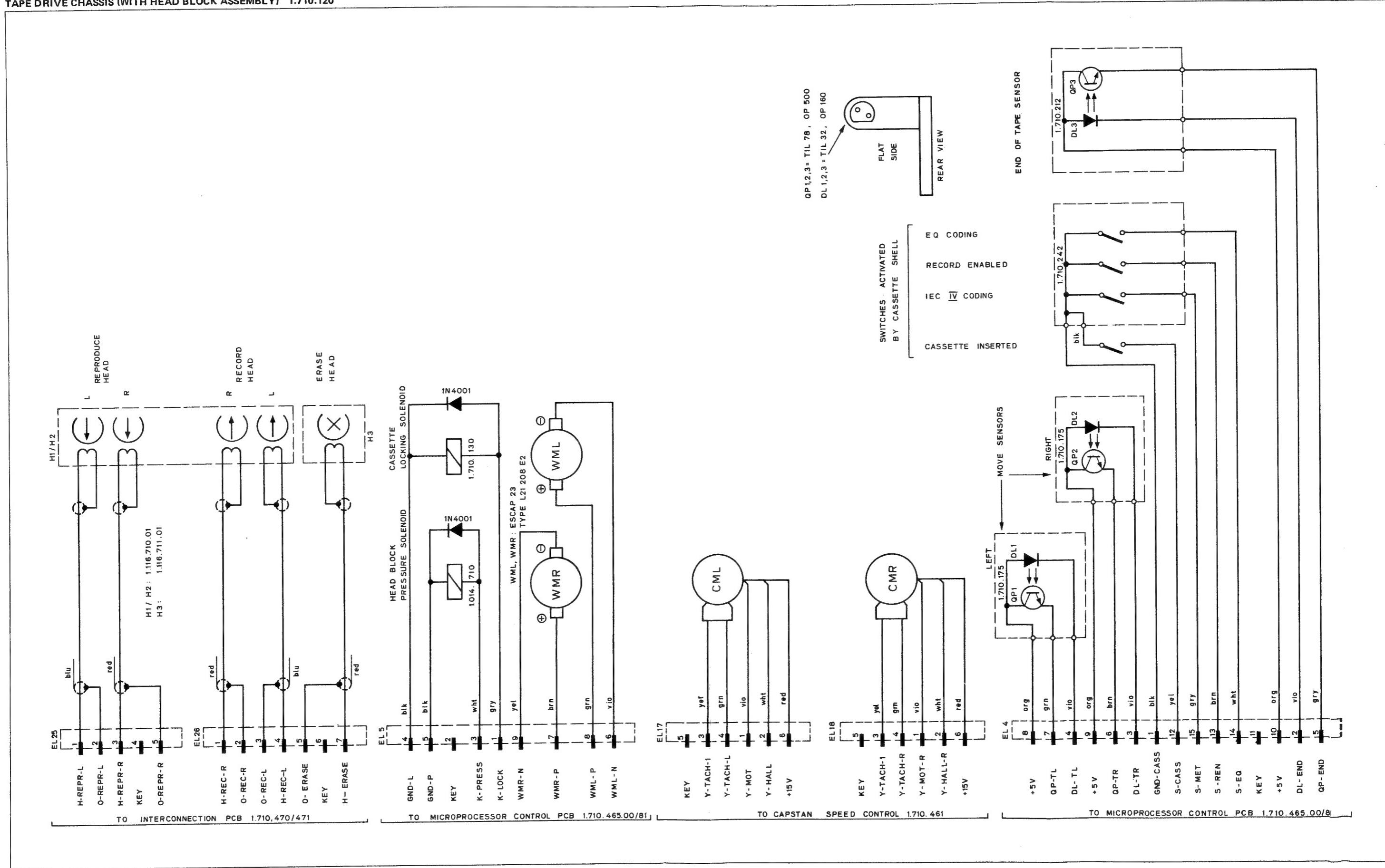
MF=Metal Filer
MANUFACTURER: S=STUDER

CPIG RI/C3/11

STUDER 81/03/11 RW Capstan-Motor-Driver

1.021.516.00 PAGE 1

TAPE DRIVE CHASSIS (WITH HEAD BLOCK ASSEMBLY) 1.710.120



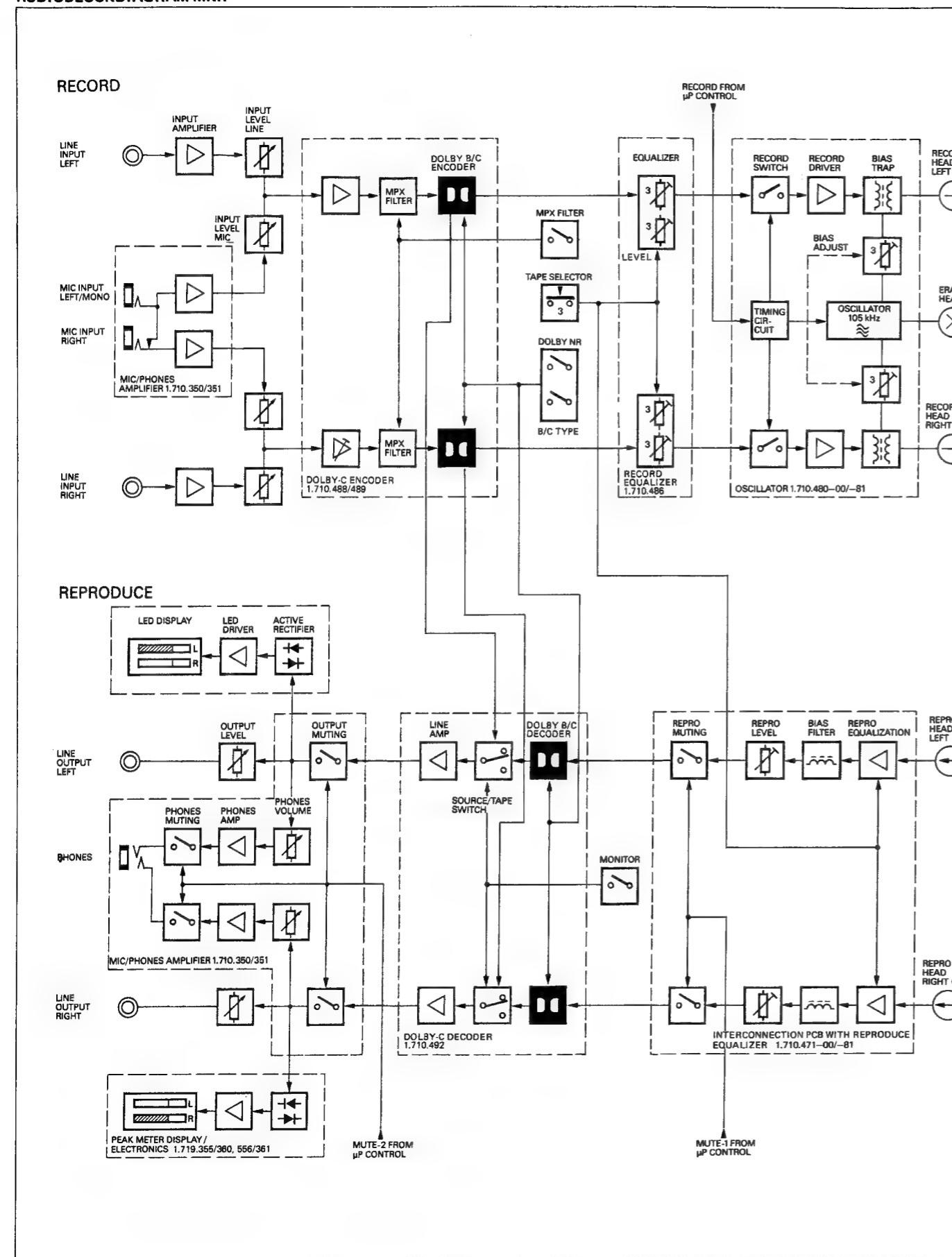
CONTENTS

| DESCRIPTION | MKII | MKI | SCHEMATIC NO. | SECTION/PAGE |
|---|------|-----|--------------------|--------------|
| POWER SUPPLY AND TAPE DRIVE | | | | 6 |
| BOARDS LOCATION MKII | x | | | 6/2 |
| BOARDS LOCATION MKI | | x | | 6/2 |
| POWER SUPPLY / TRANSFORMER UNIT | x | x | 1.710.256/260 | 6/3 |
| WIRING DIAGRAM / TAPE DRIVE SECTION MKII | x | | | 6/5 |
| WIRING DIAGRAM / TAPE DRIVE SECTION MKI | | x | | 6/6 |
| TAPE DRIVE / BLOCK DIAGRAM MKII | x | | | 6/7 |
| TAPE DRIVE / BLOCK DIAGRAM MKI | | x | | 6/8 |
| MICROPROCESSOR CONTROL PCB | x | | ▲ 1.710.465-81 | 6/9 |
| — WM—CONTROL PCB | x | | 1.710.463 | 6/9 |
| MICROPROCESSOR CONTROL PCB | | x | ▲ 1.710.465-00 | 6/11 |
| — WM—CONTROL PCB | | x | 1.710.462 | 6/11 |
| — WML—LOGIC CONTROL PCB | | x | 1.710.468 | 6/11 |
| — MICROPROCESSOR LOGIC PCB | | x | ▲ 1.710.467 | 6/13 |
| HEAD LIFTING CIRCUIT | | x | 1.710.469-00/-81 | 6/15 |
| BACK TENSION PCB | x | x | 1.710.456 | 6/17 |
| PROGRAM PRESET SWITCHES | x | x | | 6/19 |
| TOGGLE SWITCHES PCB | x | x | 1.710.332 | 6/20 |
| REMOTE CONTROL INTERFACE | x | x | 1.710.441/442 | 6/21 |
| REMOTE CONTROL PCB | x | x | 1.128.065 | 6/23 |
| COUNTER DISPLAY PCB | x | | 1.710.313 | 6/25 |
| COUNTER DISPLAY PCB | | x | 1.710.312 | 6/27 |
| KEYBOARD | x | x | 1.710.322 | 6/29 |
| CAPSTAN MOTOR CONTROL BLOCKDIAGRAM | x | x | | 6/31 |
| CAPSTAN MOTOR CONTROL PCB | x | x | ▲ 1.710.461 | 6/33 |
| CAPSTAN MOTOR DRIVER PCB | x | x | 1.021.516 | 6/35 |
| TAPE DRIVE CHASSIS (WITH HEAD BLOCK ASSEMBLY) | x | x | 1.710.120 | 6/37 |
| AUDIO | | | | 7 |
| AUDIO BLOCKDIAGRAM MKII | x | | | 7/3 |
| AUDIO BLOCKDIAGRAM MKI | | x | | 7/3 |
| WIRING OF CASSETTE CODING SWITCHES | x | | | 7/4 |
| INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) | x | | ▲ 1.710.471-81 | 7/5 |
| INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) | x | | ▲ 1.710.471-00 | 7/7 |
| INTERCONNECTION PCB | x | | 1.710.470 | 7/9 |
| AUDIO LOGIC CONTROL PCB | | x | 1.710.475 | 7/11 |
| OSCILLATOR PCB | x | x | ▲ 1.710.480-00/-81 | 7/13 |
| RECORD EQUALIZER PCB | x | | ▲ 1.710.486 | 7/15 |
| RECORD EQUALIZER PCB | | x | ▲ 1.710.485 | 7/17 |
| DOLBY-C ENCODER PCB | x | | ▲ 1.710.489 | 7/19 |
| DOLBY-C ENCODER PCB | x | | ▲ 1.710.488 | 7/21 |
| DOLBY-C DECODER PCB (WITH REPRODUCE AMPLIFIER) | x | | ▲ 1.710.492 | 7/23 |
| REPRODUCE AMPLIFIER PCB | | x | ▲ 1.710.490 | 7/25 |
| MIC/PHONES AMPLIFIER PCB | x | | 1.710.351 | 7/27 |
| MIC/PHONES AMPLIFIER PCB | x | x | 1.710.350 | 7/29 |
| PEAK METER ELECTRONICS PCB | x | x | ▲ 1.710.361(360) | 7/31 |
| PEAK METER DISPLAY PCB | x | | 1.710.356 | 7/33 |
| PEAK METER DISPLAY PCB | | x | 1.710.355 | 7/35 |
| SERVICE WIRING LIST MKII | x | | | 7/37 |
| SERVICE WIRING LIST MKI | | x | | 7/41 |

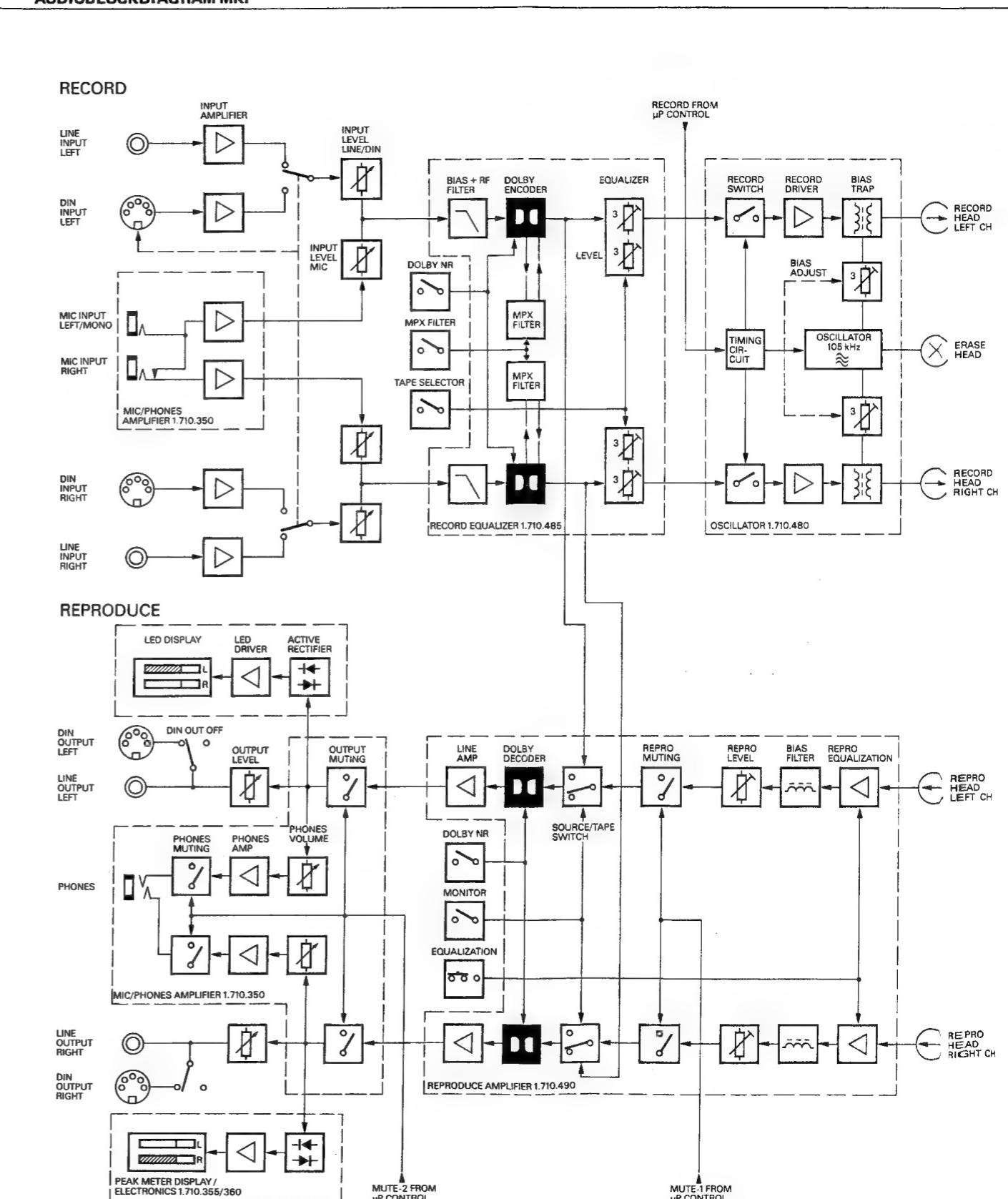


ALL PCBs MARKED WITH THIS SIGN ▲
CONTAIN COMPONENTS SENSITIVE TO
STATIC CHARGES.
PLEASE, REFER TO PREFACE BEFORE
YOU REMOVE THESE BOARDS.

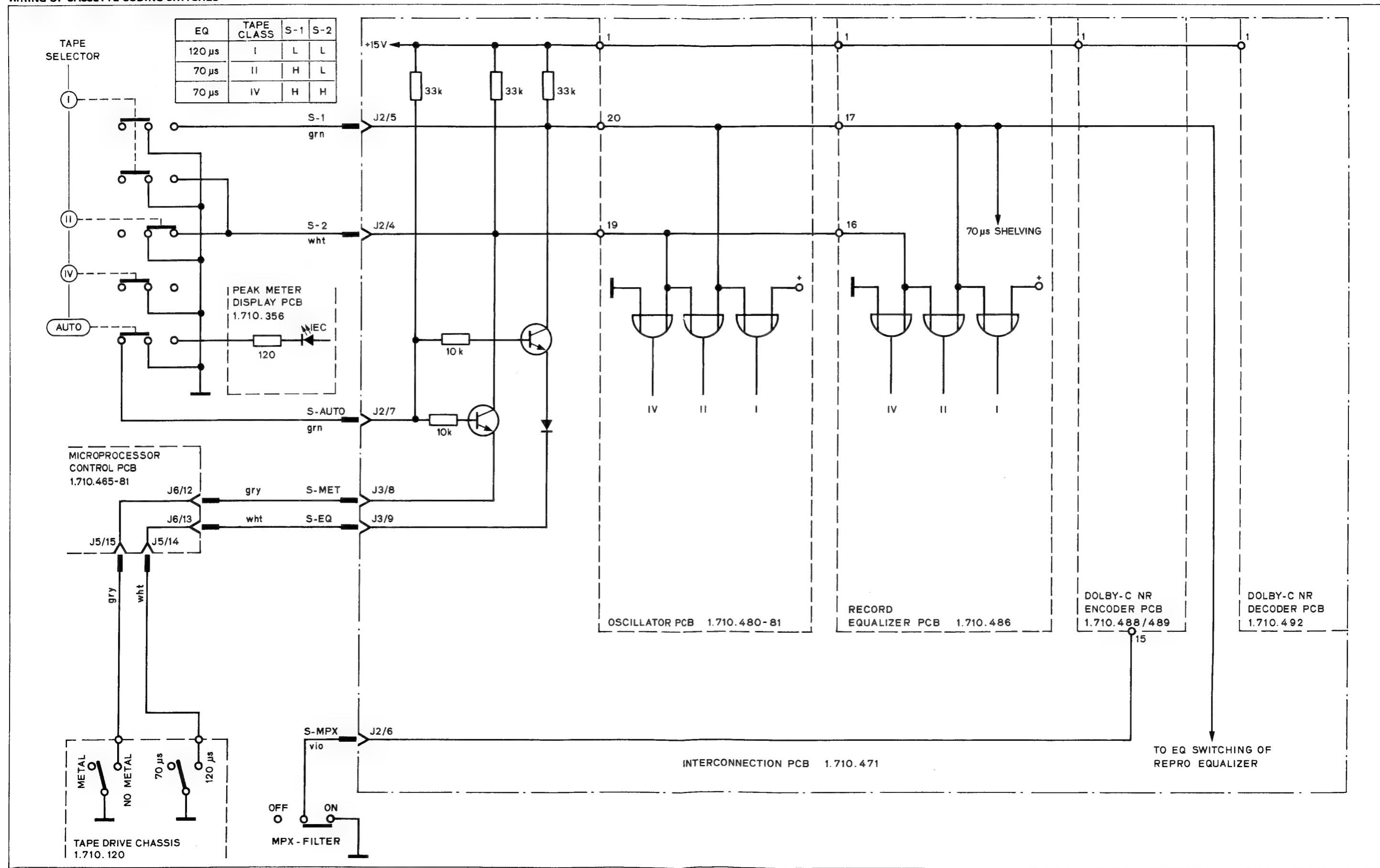
AUDIOBLOCKDIAGRAM MKII



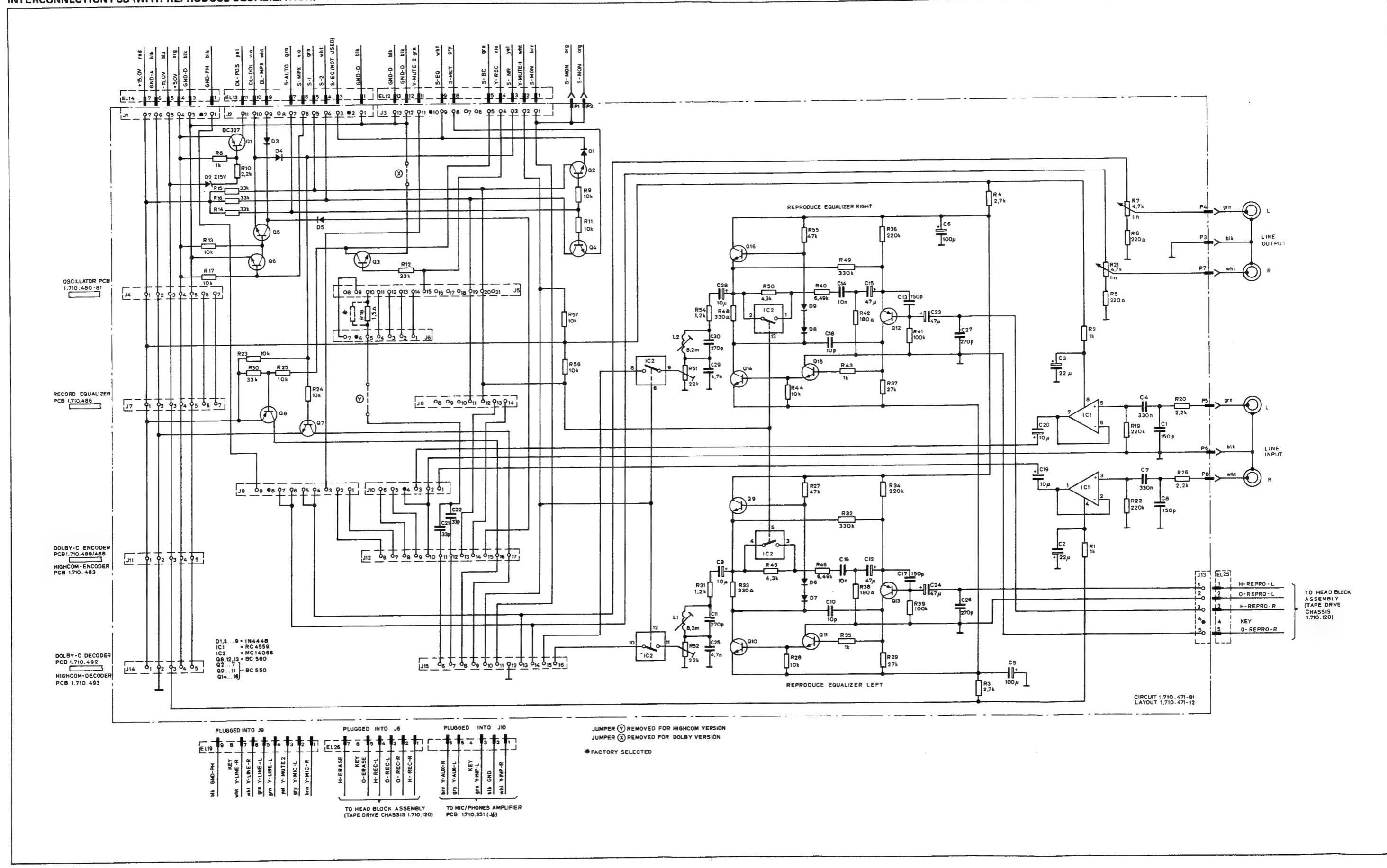
AUDIOBLOCKDIAGRAM MKI



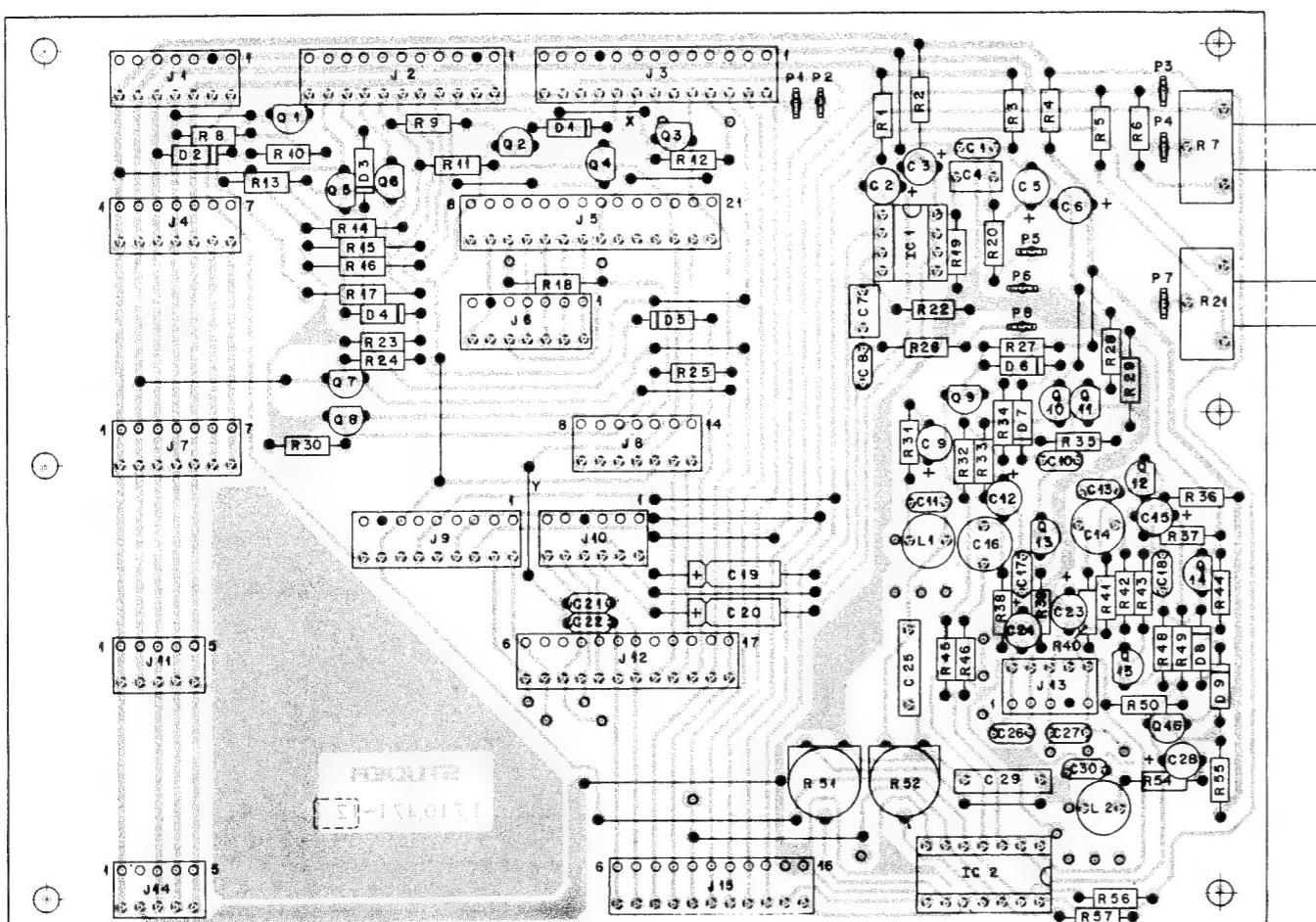
WIRING OF CASSETTE CODING SWITCHES



INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) 1.710.471-81



INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) 1.710.471-81



INC. PCS.NO. PART NO. VALUE SPECIFICATIONS / EQUIVALENT MANUF.

| | | | | | | | |
|----------|------------|--------|---------------|----------|------------|-----------|---------------------|
| C.....1 | 59.32.1151 | 150 pF | 20%, 25V, Cer | R.....23 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....2 | 59.22.5220 | 22 uF | -10%, 25V, El | R.....24 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....3 | 59.22.5220 | 22 uF | -10%, 25V, El | R.....25 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....4 | 59.C6.0334 | 33 nF | 10%, 25V, PE | R.....26 | 57.11.4222 | 2.7 kChm | 5%, 0.25W, CF |
| C.....5 | 59.32.1151 | 150 pF | 20%, 25V, El | R.....27 | 57.11.4473 | 47 kChm | 5%, 0.25W, CF |
| C.....6 | 59.32.3101 | 100 uF | -10%, 10V, El | R.....28 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....7 | 59.C6.0334 | 33 nF | 10%, 25V, PE | R.....29 | 57.11.4273 | 27 kChm | 5%, 0.25W, CF |
| C.....8 | 59.32.1151 | 150 pF | 20%, 25V, Cer | R.....30 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....9 | 59.22.6100 | 10 uF | -10%, 25V, El | R.....31 | 57.11.4122 | 1.2 kChm | 5%, 0.25W, CF |
| C.....10 | 59.32.1151 | 150 pF | 20%, 25V, El | R.....32 | 57.11.4334 | 330 kChm | 5%, 0.25W, CF |
| C.....11 | 59.34.4271 | 270 pF | 5%, 25V, Cer | R.....33 | 57.11.4331 | 330 Chm | 5%, 0.25W, CF |
| C.....12 | 59.22.3470 | 47 uF | -10%, 10V, El | R.....34 | 57.11.4224 | 220 kChm | 5%, 0.25W, CF |
| C.....13 | 59.32.1151 | 150 pF | 20%, 25V, Cer | R.....35 | 57.11.4402 | 1 kChm | 5%, 0.25W, CF |
| C.....14 | 59.C5.2103 | 10 nF | 2.5%, 25V, PP | R.....36 | 57.11.4224 | 230 kChm | 5%, 0.25W, CF |
| C.....15 | 59.22.3470 | 47 uF | -10%, 10V, El | R.....37 | 57.11.4273 | 27 kChm | 5%, 0.25W, CF |
| C.....16 | 59.32.1151 | 10 uF | 2.5%, 25V, PP | R.....38 | 57.11.4181 | 180 Chm | 5%, 0.25W, CF |
| C.....17 | 59.32.1151 | 150 pF | 20%, 25V, Cer | R.....39 | 57.11.4103 | 100 kChm | 5%, 0.25W, CF |
| C.....18 | 59.32.0100 | 10 pF | 20%, 25V, Cer | R.....40 | 57.39.6401 | 6.49 kChm | 1%, 0.25W, HF |
| C.....19 | 59.25.4100 | 10 uF | -10%, 25V, El | R.....41 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....20 | 59.25.4100 | 10 uF | -10%, 25V, El | R.....42 | 57.11.4181 | 180 Chm | 5%, 0.25W, CF |
| C.....21 | 59.32.1330 | 33 pF | 20%, 25V, Cer | R.....43 | 57.11.4102 | 1 kChm | 5%, 0.25W, CF |
| C.....22 | 59.32.1330 | 33 pF | 20%, 25V, Cer | R.....44 | 57.11.4103 | 10 kChm | 5%, 0.25W, CF |
| C.....23 | 59.32.3470 | 47 uF | -10%, 10V, El | R.....45 | 57.11.3432 | 4.3 kChm | 1%, 0.25W, HF |
| C.....24 | 59.22.3470 | 47 uF | -10%, 10V, El | R.....46 | 57.39.6491 | 6.49 kChm | 1%, 0.25W, HF |
| C.....25 | 59.31.1172 | 270 pF | 2.5%, 25V, PC | R.....47 | 57.11.4331 | 330 Chm | 5%, 0.25W, CF |
| C.....26 | 59.34.4271 | 270 pF | 5%, 25V, Cer | R.....48 | 57.11.4331 | 330 Chm | 5%, 0.25W, CF |
| C.....27 | 59.34.4271 | 270 pF | 5%, 25V, Cer | R.....49 | 57.11.4331 | 330 Chm | 5%, 0.25W, CF |
| C.....28 | 59.22.6100 | 10 uF | -10%, 25V, El | R.....50 | 57.11.3432 | 4.3 kChm | 1%, 0.25W, HF |
| C.....29 | 59.11.4472 | 47 nF | 2.5%, 25V, PC | R.....51 | 58.C2.5223 | 22 kChm | 20%, 0.10W, PCF+LIN |
| C.....30 | 59.34.4271 | 270 pF | 5%, 25V, Cer | R.....52 | 58.C2.5223 | 22 kChm | 20%, 0.10W, PCF+LIN |

STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 1

STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 4

INC. PCS.NO. PART NO. VALUE SPECIFICATIONS / EQUIVALENT MANUF.

| | | | | | | | |
|---------|------------|--------|--------|-----|--|--|--|
| D.....1 | 5C.C4.0125 | IN4448 | SI | any | | | |
| D.....2 | 5C.C4.1119 | Z 15V | %400mW | | | | |
| D.....3 | 5C.C4.0125 | IN4448 | SI | any | | | |
| D.....4 | 5C.C4.0125 | IN4448 | SI | any | | | |
| D.....5 | 5C.C4.0125 | IN4448 | SI | any | | | |
| D.....6 | 5C.C4.0125 | IN4448 | SI | any | | | |

EL=C=Electrolytic, Cer=Ceramic,
FF=Cylinder, PP=Polypropylene, PC=Polycarbonate,
CF=Carlin Film, MF=Metal Film;
MANUFACTURER: Mot=PIRELLA, Ph=PHILIPS, Ra=RAYTHEON,
St=STUDER, Sie=SIEMENS, Ti=TEXAS INSTRUMENTS,

STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 2

STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 5

INC. PCS.NO. PART NO. VALUE SPECIFICATIONS / EQUIVALENT MANUF.

| | | | | | | | |
|----------|------------|----------|--------------------|--------|--|--|--|
| Q.....1 | 5C.C4.0107 | RC 4559 | Dual Rp. Amp., HEF | Ra,Ti | | | |
| Q.....2 | 5C.C7.0060 | MC 14C66 | HEF 4066 | Mot,Ph | | | |
| J.....1 | 54.C1.0218 | 7-Pole | C15-Socket-Strip | AMP | | | |
| J.....2 | 54.C1.0218 | 11-Pole | C15-Socket-Strip | AMP | | | |
| J.....3 | 54.C1.0218 | 13-Pole | C15-Socket-Strip | AMP | | | |
| J.....4 | 54.C1.0218 | 14-Pole | C15-Socket-Strip | AMP | | | |
| J.....5 | 54.C1.0293 | 14-Pole | C15-Socket-Strip | AMP | | | |
| J.....6 | 54.C1.0218 | 14-Pole | C15-Socket-Strip | AMP | | | |
| J.....7 | 54.C1.0218 | 7-Pole | C15-Socket-Strip | AMP | | | |
| J.....8 | 54.C1.0218 | 9-Pole | C15-Socket-Strip | AMP | | | |
| J.....9 | 54.C1.0217 | 9-Pole | C15-Socket-Strip | AMP | | | |
| J.....10 | 54.C1.0216 | 6-Pole | C15-Socket-Strip | AMP | | | |
| J.....11 | 54.C1.0288 | 5-Pole | C15-Socket-Strip | AMP | | | |
| J.....12 | 54.C1.0215 | 12-Pole | C15-Socket-Strip | AMP | | | |
| J.....13 | 54.C1.0288 | 5-Pole | C15-Socket-Strip | AMP | | | |
| J.....14 | 54.C1.0288 | 5-Pole | C15-Socket-Strip | AMP | | | |
| J.....15 | 54.C1.0281 | 11-Pole | C15-Socket-Strip | AMP | | | |
| L.....1 | 62.C2.1182 | L 9.2mH | 55% | | | | |
| L.....2 | 62.C2.1182 | L 8.2mH | 55% | | | | |
| P.....1 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....2 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....3 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....4 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....5 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....6 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....7 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| P.....8 | 54.C2.0320 | Flat-pin | Flat-pin | AMP | | | |
| Q.....1 | 5C.C3.0351 | BC 327 | NPN | Mot | | | |
| Q.....2 | 5C.C3.0457 | BC 450 | NPN | Sie | | | |

CRIG B2/10/13

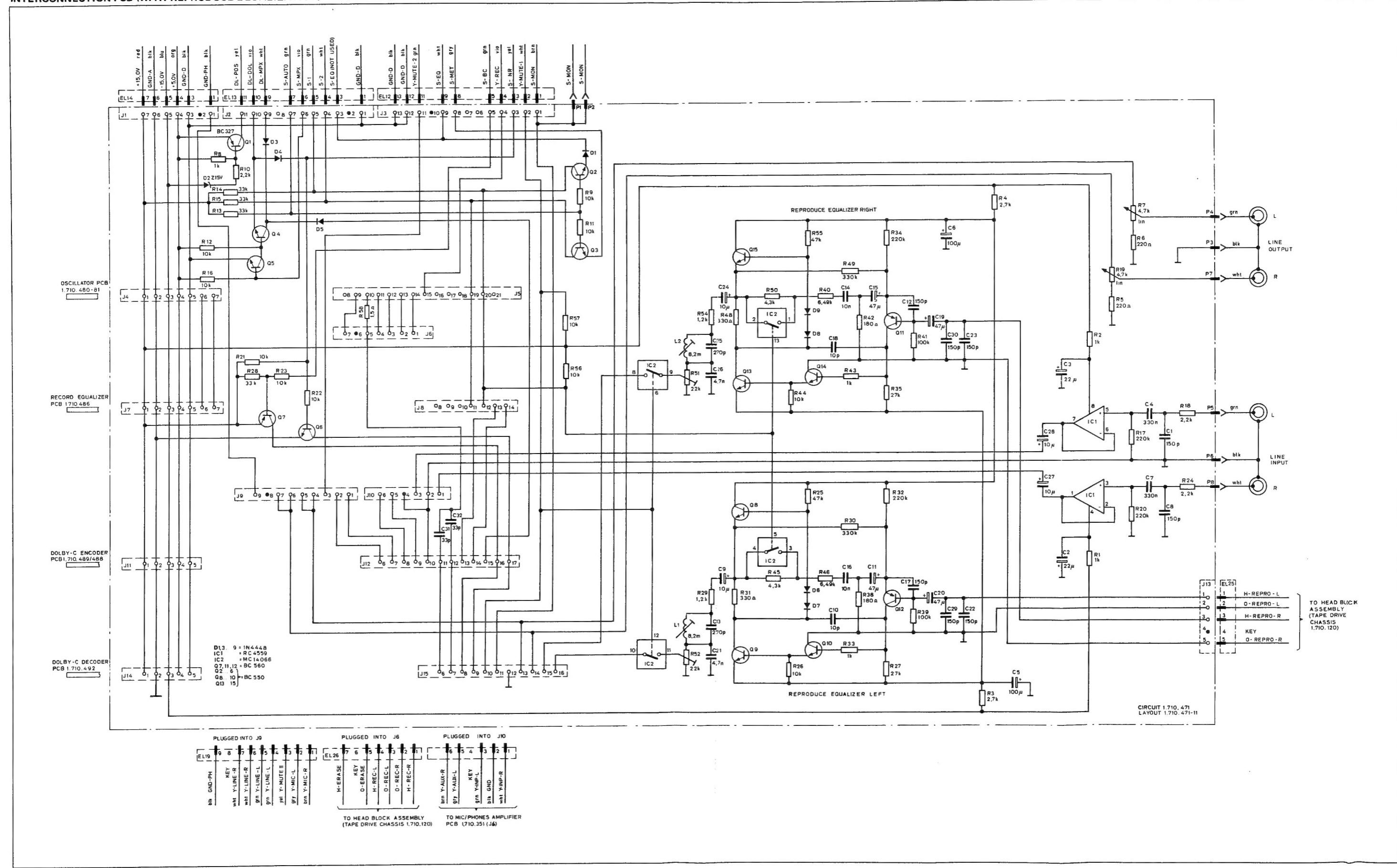
STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 3

STUDER B2/11/04 RW INTERCONNECTION BOARD MK 2 1.710.471-81 PAGE 6

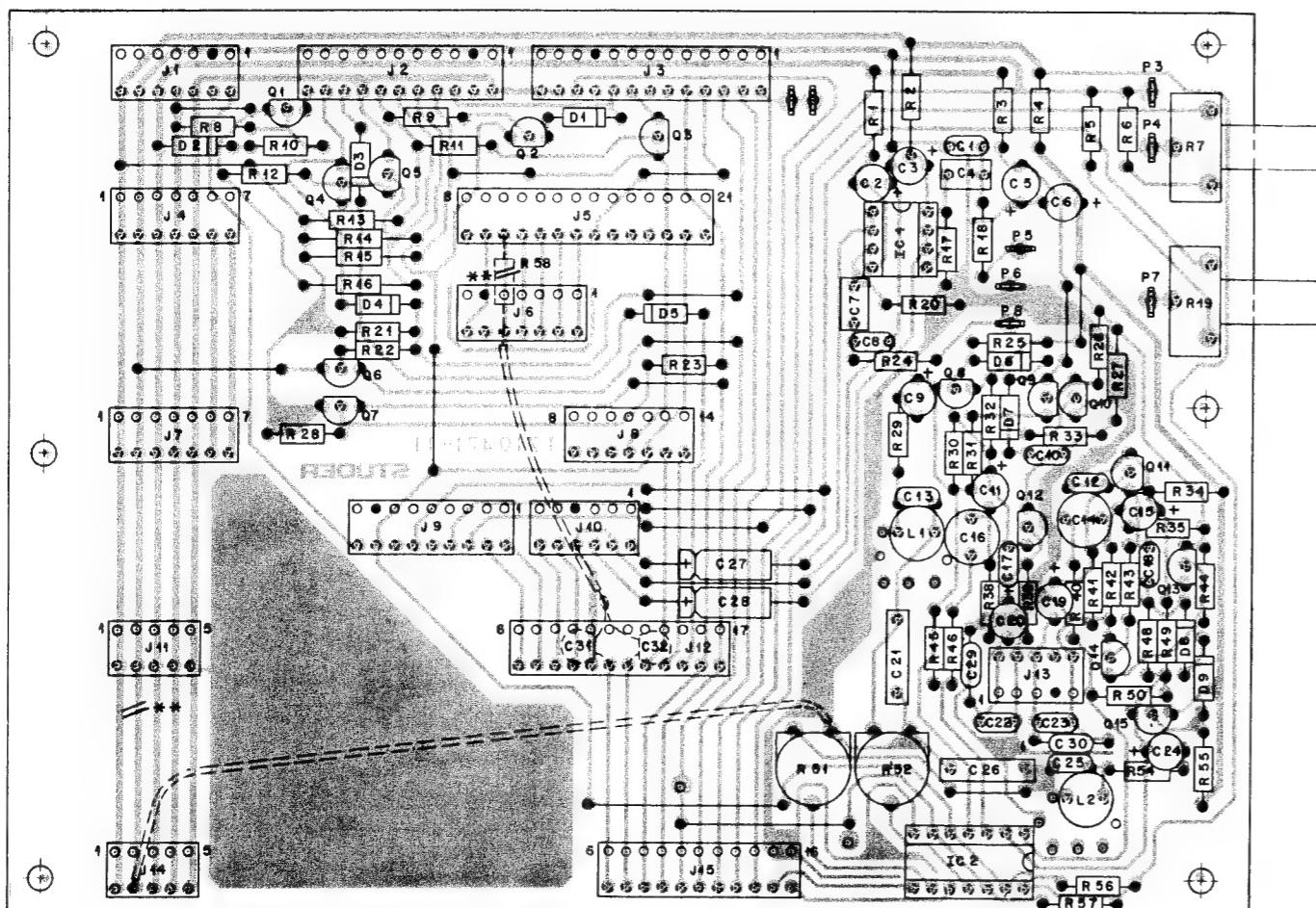
INC. PCS.NO. PART NO. VALUE SPECIFICATIONS / EQUIVALENT MANUF.

| | | | | | | | |
|----------|------------|--------|-----|-----|--|--|--|
| Q.....3 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....4 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....5 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....6 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....7 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....8 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....9 | 5G.C3.0497 | BC 550 | NPN | Sie | | | |
| Q.....10 | 5G | | | | | | |

INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) 1.710.471-00



INTERCONNECTION PCB (WITH REPRODUCE EQUALIZATION) 1.710.471-00



| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|----------|----------|-------|-----------------------------|--------|------|----------|----------|-------|-----------------------------|--------|
|------|----------|----------|-------|-----------------------------|--------|------|----------|----------|-------|-----------------------------|--------|

| | | | | | | | | | | | | |
|----------|------------|------------|-----------|-----------|----------|------------|-----------------|-----------------|-------------------|---------------|--|--|
| C.....1 | 59.32+1151 | 150 pF | 20%, 25V | Cer | | R.....22 | 57.11+103 | 10 kOhm | 5%, 0.25W, CF | | | |
| C.....2 | 59.22+5220 | 22 uF | -10%, 25V | El | | R.....23 | 57.11+103 | 10 kOhm | 5%, 0.25W, CF | | | |
| C.....3 | 59.22+5220 | 22 uF | -10%, 25V | El | | R.....24 | 57.11+222 | 2.2 kOhm | 5%, 0.25W, CF | | | |
| C.....4 | 59.22+5220 | 330 nF | -10%, 25V | PE | | R.....25 | 57.11+4473 | 47 kOhm | 5%, 0.25W, CF | | | |
| (02) | C.....5 | 59.22+3101 | 100 uF | -10%, 10V | El | R.....26 | 57.11+103 | 10 kOhm | 5%, 0.25W, CF | | | |
| C.....6 | 59.22+3101 | 100 uF | -10%, 10V | El | R.....27 | 57.11+4273 | 27 kOhm | 5%, 0.25W, CF | | | | |
| C.....7 | 59.06+0334 | 330 nF | 10%, 25V | PE | R.....28 | 57.11+5333 | 33 kOhm | 5%, 0.25W, CF | | | | |
| C.....8 | 59.32+1151 | 150 pF | 20%, 25V | Cer | (02) | R.....29 | 57.11+4122 | 1.2 kOhm | 5%, 0.25W, CF | | | |
| C.....9 | 59.22+5220 | 10 uF | -10%, 25V | El | (02) | R.....30 | 57.11+334 | 330 kOhm | 5%, 0.25W, CF | | | |
| C.....10 | 59.22+5100 | 10 pF | -10%, 25V | El | R.....31 | 57.11+103 | 330 kOhm | 5%, 0.25W, CF | | | | |
| C.....11 | 59.22+3470 | 47 uF | -10%, 10V | El | R.....32 | 57.11+224 | 2.2 kOhm | 5%, 0.25W, CF | | | | |
| C.....12 | 59.32+1151 | 150 pF | 20%, 25V | Cer | R.....33 | 57.11+4102 | 1 kOhm | 5%, 0.25W, CF | | | | |
| C.....13 | 59.34+6271 | 270 pF | 5%, 25V | Cer | R.....34 | 57.11+4224 | 220 kOhm | 5%, 0.25W, CF | | | | |
| C.....14 | 59.22+2103 | 100 nF | 2.5%, 25V | PP | R.....35 | 57.11+4273 | 27 kOhm | 5%, 0.25W, CF | | | | |
| C.....15 | 59.22+2103 | 47 uF | -10%, 10V | El | (02) | R.....36 | Replaced by C27 | | | | | |
| C.....16 | 59.05+2103 | 10 nF | 2.5%, 25V | PP | R.....37 | 57.11+4102 | 100 kOhm | 5%, 0.25W, CF | | | | |
| C.....17 | 59.32+1151 | 150 pF | 20%, 25V | Cer | R.....38 | 57.11+1181 | 180 Ohm | 5%, 0.25W, CF | | | | |
| C.....18 | 59.32+0101 | 10 pF | 20%, 25V | Cer | R.....39 | 57.11+104 | 100 kOhm | 5%, 0.25W, CF | | | | |
| C.....19 | 59.22+3470 | 47 uF | -10%, 10V | El | R.....40 | 57.39+6491 | 6.49 kOhm | 1%, 0.25W, MF | | | | |
| C.....20 | 59.22+5100 | 10 pF | -10%, 25V | El | R.....41 | 57.11+104 | 100 kOhm | 5%, 0.25W, CF | | | | |
| C.....21 | 59.11+4472 | 4.7 nF | 2.5%, 25V | PC | R.....42 | 57.11+103 | 100 kOhm | 5%, 0.25W, CF | | | | |
| C.....22 | 59.34+2151 | 150 pF | 5%, 25V | Cer | R.....43 | 57.11+4102 | 1 kOhm | 5%, 0.25W, CF | | | | |
| C.....23 | 59.34+2151 | 150 pF | 5%, 25V | Cer | R.....44 | 57.11+103 | 10 kOhm | 5%, 0.25W, CF | | | | |
| C.....24 | 59.22+6000 | 10 uF | -10%, 25V | Cer | R.....45 | 57.11+332 | 4.3 kOhm | 1%, 0.25W, CF | | | | |
| C.....25 | 59.32+2171 | 200 pF | 5%, 25V | Cer | R.....46 | 57.39+6491 | 6.49 kOhm | 1%, 0.25W, MF | | | | |
| C.....26 | 59.11+4472 | 4.7 nF | 2.5%, 25V | PC | R.....47 | 57.11+4331 | 330 Ohm | 5%, 0.25W, CF | | | | |
| C.....27 | 59.25+1100 | 10 uF | -10%, 25V | El | (02) | R.....48 | 57.11+4274 | 330 kOhm | 5%, 0.25W, CF | | | |
| (01) | C.....28 | 59.25+1100 | 10 uF | -10%, 25V | El | (02) | R.....49 | 57.11+3432 | 4.3 kOhm | 1%, 0.25W, MF | | |
| (02) | C.....29 | 59.32+1151 | 150 pF | 20%, 25V | Cer | R.....50 | 58.02+5223 | 22 kOhm | 20%, 10W, PCL+LIN | | | |
| (02) | C.....30 | 59.32+1151 | 150 pF | 20%, 25V | Cer | R.....51 | 58.02+5223 | 22 kOhm | 20%, 10W, PCL+LIN | | | |
| (02) | C.....31 | 59.32+1330 | 33 pF | 20%, 25V | Cer | (02) | R.....52 | Replaced by C30 | | | | |
| (02) | C.....32 | 59.32+1333 | 33 pF | 20%, 25V | Cer | R.....53 | 57.11+4153 | 1.2 kOhm | 5%, 0.25W, CF | | | |

STUDER 82/07/01 RW INTERCONNECTION BOARD MK 2 1.710.471.00 PAGE 1

STUDER 82/07/01 RW INTERCONNECTION BOARD MK 2 1.710.471.00 PAGE 4

| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|----------|----------|-------|-----------------------------|--------|------|----------|----------|-------|-----------------------------|--------|
|------|----------|----------|-------|-----------------------------|--------|------|----------|----------|-------|-----------------------------|--------|

| | | | | | | | | | | | |
|----------|------------|--------------|------------------|-----|--|----------|------------|--------------|------------------|-------|--|
| D.....1 | 50.04+0125 | 1N4448 | SI | any | | D.....5 | 50.04+0125 | 1N4448 | SI | any | |
| D.....2 | 50.04+0119 | ZL 13V | 5%+400mW | | | D.....6 | 50.04+0125 | 1N4448 | SI | any | |
| D.....3 | 50.04+0125 | 1N4448 | SI | any | | D.....7 | 50.04+0125 | 1N4448 | SI | any | |
| D.....4 | 50.04+0125 | 1N4448 | SI | any | | D.....8 | 50.04+0125 | 1N4448 | SI | any | |
| D.....9 | 50.04+0125 | 1N4448 | SI | any | | IC.....1 | 50.09+0107 | RC 4559 | Dual Op. Amp. | Rati | |
| D.....10 | 50.04+0125 | 1N4448 | SI | any | | IC.....2 | 50.07+0066 | IC 14066 | CMOS | Hs TI | |
| J.....1 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | | J.....1 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | |
| J.....2 | 54.01+0291 | 11-Pole | C15=Socket-Strip | | | J.....2 | 54.01+0291 | 13-Pole | C15=Socket-Strip | | |
| J.....3 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | | J.....4 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | |
| J.....5 | 54.01+0293 | 14-Pole | C15=Socket-Strip | | | J.....6 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | |
| J.....7 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | | J.....8 | 54.01+0218 | 7-Pole | C15=Socket-Strip | | |
| J.....9 | 54.01+0217 | 9-Pole | C15=Socket-Strip | | | J.....10 | 54.01+0216 | 6-Pole | C15=Socket-Strip | | |
| J.....11 | 54.01+0216 | 5-Pole | C15=Socket-Strip | | | J.....12 | 54.01+0215 | 12-Pole | C15=Socket-Strip | | |
| J.....13 | 54.01+0288 | 12-Pole | C15=Socket-Strip | | | J.....14 | 54.01+0288 | 5-Pole | C15=Socket-Strip | | |
| J.....15 | 54.01+0291 | 11-Pole | C15=Socket-Strip | | | L.....1 | 62.02+1822 | L 8.2mH | 5% | | |
| P.....1 | 54.02+0320 | AMP Flat-pin | | | | L.....2 | 62.02+1822 | L 8.2mH | 5% | | |
| P.....2 | 54.02+0320 | AMP Flat-pin | | | | P.....1 | 54.02+0320 | AMP Flat-pin | | | |
| P.....3 | 54.02+0320 | AMP Flat-pin | | | | P.....2 | 54.02+0320 | AMP Flat-pin | | | |
| P.....5 | 54.02+0320 | AMP Flat-pin | | | | P.....6 | 54.02+0320 | AMP Flat-pin | | | |
| P.....7 | 54.02+0320 | AMP Flat-pin | | | | P.....8 | 54.02+0320 | AMP Flat-pin | | | |

E1=Electrolytic, Ta=Tantulum, Cer=Ceramic, El=Electrolytic,
PC=Polyester, PP=Polypropylene, PC=Polycarbonate,
CF=Carbon Film, MF=Metal Film,
MANUFACTURER: Ray+Raytheon, S=STUDER, Ti=TEXAS INSTRUMENTS.

ORIG R2/01/07 (01) 82/03/10 (02) 82/05/03

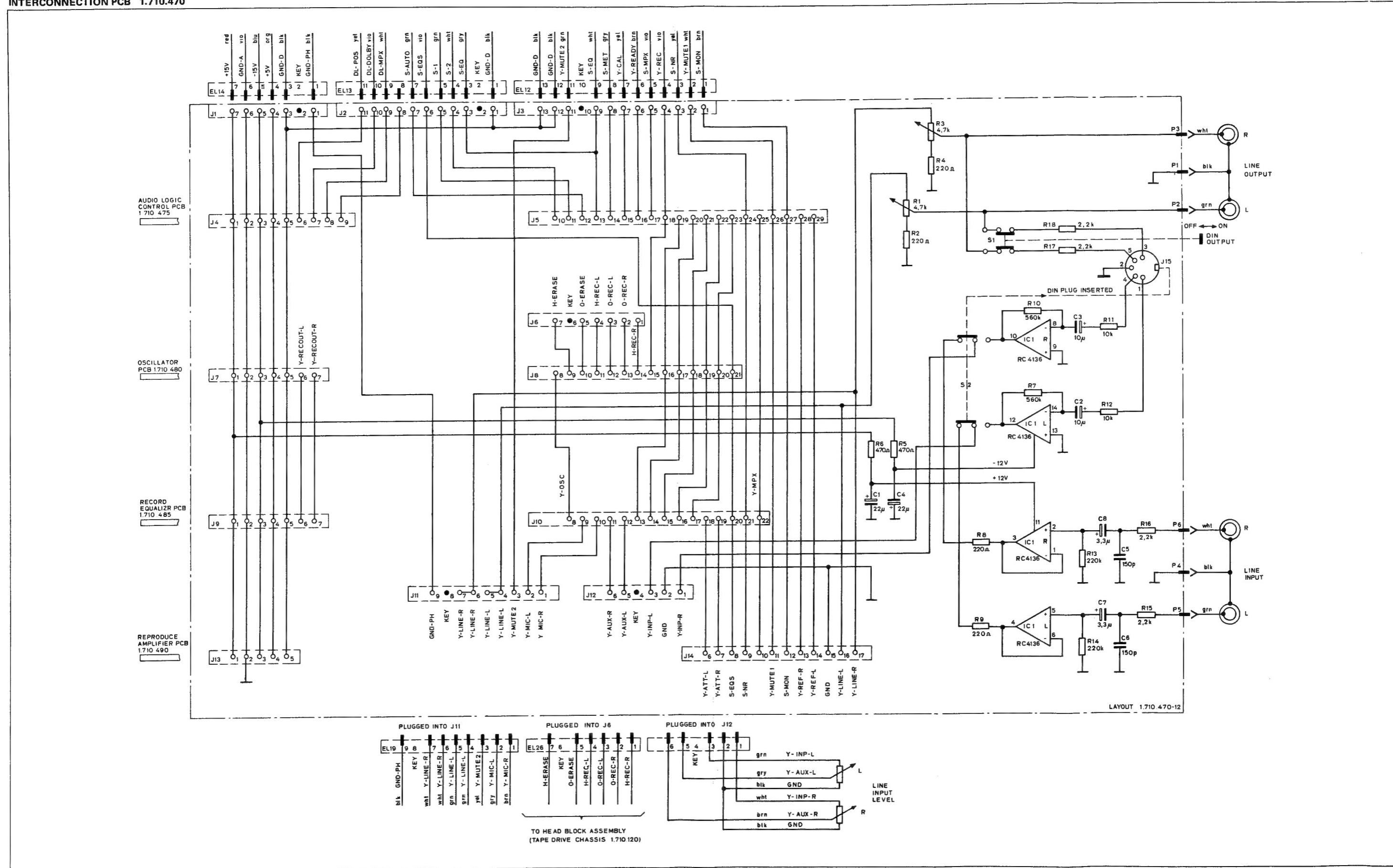
STUDER 82/07/01 RW INTERCONNECTION BOARD MK 2 1.710.471.00 PAGE 2

STUDER 82/07/01 RW INTERCONNECTION BOARD MK 2 1.710.471.00 PAGE 5

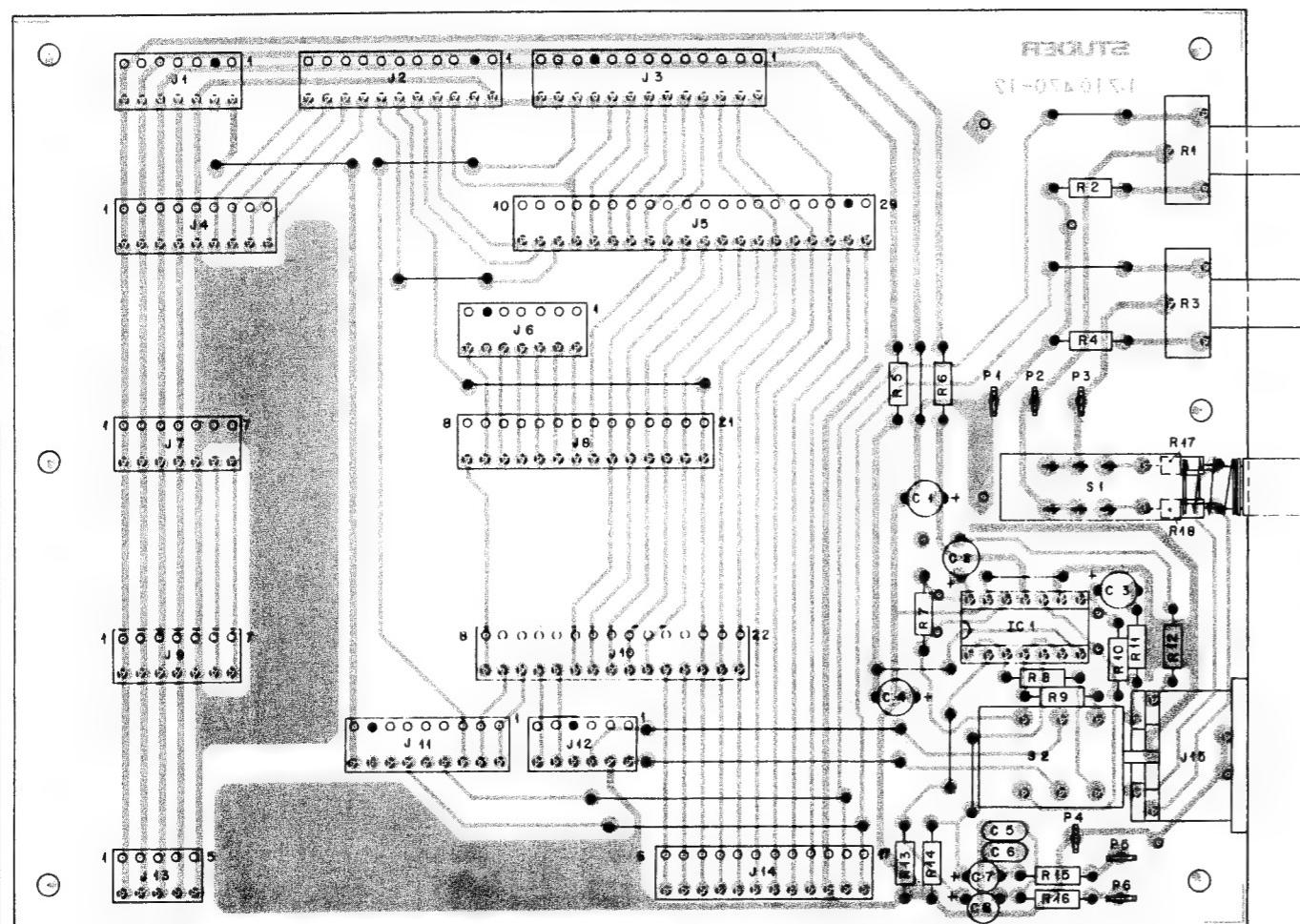
| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|----------|----------|-------|-----------------------------|--------|
|------|----------|----------|-------|-----------------------------|--------|

| | | | | | |
|---------|------------|--------|-----|----|--|
| Q.....1 | 50.03+0496 | BC 560 | PNP | SI | |
| Q.....2 | 50.03+0497 | BC 550 | NPN | SI | |
| Q.....3 | 50.03+0497 | BC 550 | NPN | SI | |
| Q.....4 | 50.03+0497 | BC 550 | N | | |

INTERCONNECTION PCB 1.710.470



INTERCONNECTION PCB 1.710.470



| INC. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|----------|--------------|----------|-----------------------------|---------|
| C.....1 | | 59-22-5220 | 22 uF | -10%, 25V | E1 |
| C.....2 | | 59-30-6339 | 3x3 uF | -20%, 25V | Ta |
| C.....3 | | 59-30-6339 | 3x3 uF | -20%, 25V | Ta |
| C.....4 | | 59-22-5220 | 22 uF | -10%, 25V | F1 |
| C.....5 | | 59-30-6339 | 150 pF | -20%, 25V | Cer |
| C.....6 | | 59-30-1151 | 150 pF | -20%, 25V | Cer |
| C.....7 | | 59-30-6339 | 3x3 uF | -20%, 25V | Ta |
| C.....8 | | 59-30-6339 | 3x3 uF | -20%, 25V | Ta |
| J.....1 | | 54-01-0218 | 7-Pole | C15-Socket-Strip | |
| J.....2 | | 54-01-0291 | 11-Pole | C15-Socket-Strip | |
| J.....3 | | 54-01-0292 | 13-Pole | C15-Socket-Strip | |
| J.....4 | | 54-01-0217 | 9-Pole | C15-Socket-Strip | |
| J.....5 | | 54-01-0226 | 20-Pole | C15-Socket-Strip | |
| J.....6 | | 54-01-0219 | 15-Pole | C15-Socket-Strip | |
| J.....7 | | 54-01-0218 | 7-Pole | C15-Socket-Strip | |
| J.....8 | | 54-01-0293 | 14-Pole | C15-Socket-Strip | |
| J.....9 | | 54-01-0218 | 7-Pole | C15-Socket-Strip | |
| J.....10 | | 54-01-0219 | 15-Pole | C15-Socket-Strip | |
| J.....11 | | 54-01-0217 | 13-Pole | C15-Socket-Strip | |
| J.....12 | | 54-01-0216 | 6-Pole | C15-Socket-Strip | |
| J.....13 | | 54-01-0288 | 5-Pole | C15-Socket-Strip | |
| J.....14 | | 54-01-0215 | 12-Pole | C15-Socket-Strip | |
| J.....15 | | 54-02-0321 | 5-Pole | DIN-Socket | |
| IC....1 | | 50-05-0232 | RC 4136 | Dual Op. Amp. | Ray. Ti |
| R.....1 | | 1-710-470-02 | 4.7 kOhm | Pot. Meter | S |
| R.....2 | | 57-11-4221 | 220 kOhm | 5% 0.25W, CF | |
| R.....3 | | 57-11-4221 | 4.7 kOhm | Pot. Meter | S |
| R.....4 | | 57-11-4221 | 220 Ohm | 5% 0.25W, CF | |
| R.....5 | | 57-11-4471 | 470 Ohm | 5% 0.25W, CF | |
| R.....6 | | 57-11-4471 | 470 Ohm | 5% 0.25W, CF | |
| R.....7 | | 57-11-4564 | 560 kOhm | 5% 0.25W, CF | |
| R.....8 | | 57-11-4221 | 220 Ohm | 5% 0.25W, CF | |
| R.....9 | | 57-11-4221 | 220 Ohm | 5% 0.25W, CF | |
| R.....10 | | 57-11-4564 | 560 kOhm | 5% 0.25W, CF | |

| INC. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|----------|--------------|----------|-----------------------------|--------|
| R.....11 | | 57-11-4103 | 10 kOhm | 5% 0.25W, CF | |
| R.....12 | | 57-11-4103 | 10 kOhm | 5% 0.25W, CF | |
| R.....13 | | 57-11-4224 | 220 kOhm | 5% 0.25W, CF | |
| P.....14 | | 57-11-4224 | 220 kOhm | 5% 0.25W, CF | |
| R.....15 | | 57-11-4222 | 2x2 kOhm | 5% 0.25W, CF | |
| R.....16 | | 57-11-4222 | 2x2 kOhm | 5% 0.25W, CF | |
| R.....17 | | 57-11-4222 | 2x2 kOhm | 5% 0.25W, CF | |
| R.....18 | | 57-11-4222 | 2x2 kOhm | 5% 0.25W, CF | |
| S.....1 | | 1-710-470-01 | 2x U | Pushbutton-switch | 5 |
| S.....2 | | 55-01-0306 | 2x U | Plug-actuated slide-switch | 5 |

E1=Electrolytic, Ta=Tantalum,
CF=Carbon Film
MANUFACTURER: Ray= Raytheon, S=STUDER, Ti=TEXAS INSTRUMENTS,
CRIC R1/C2/Z4

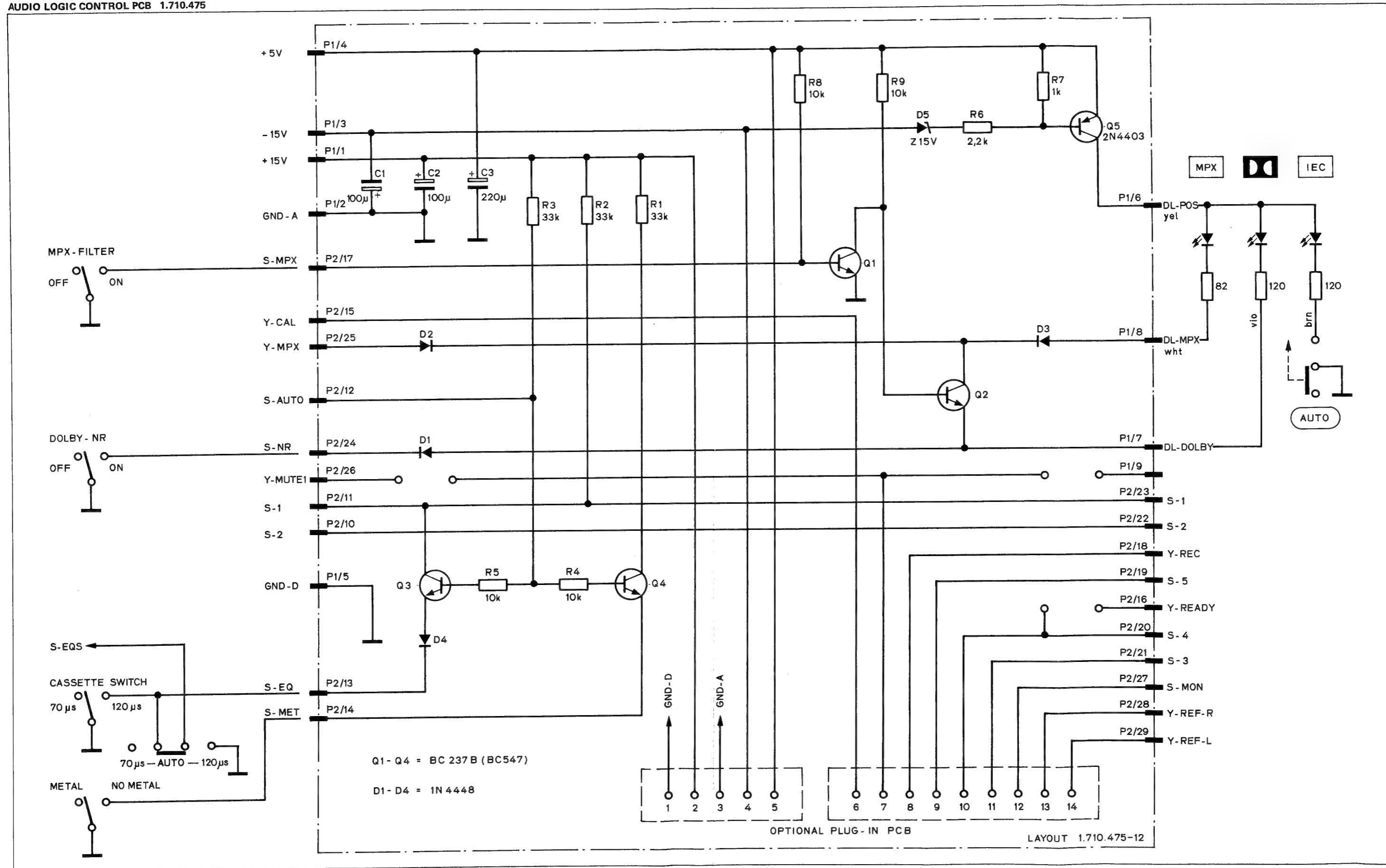
STUDER 81/02/27 RW INTERCONNECTION BOARD

1.710.470.00 PAGE 1

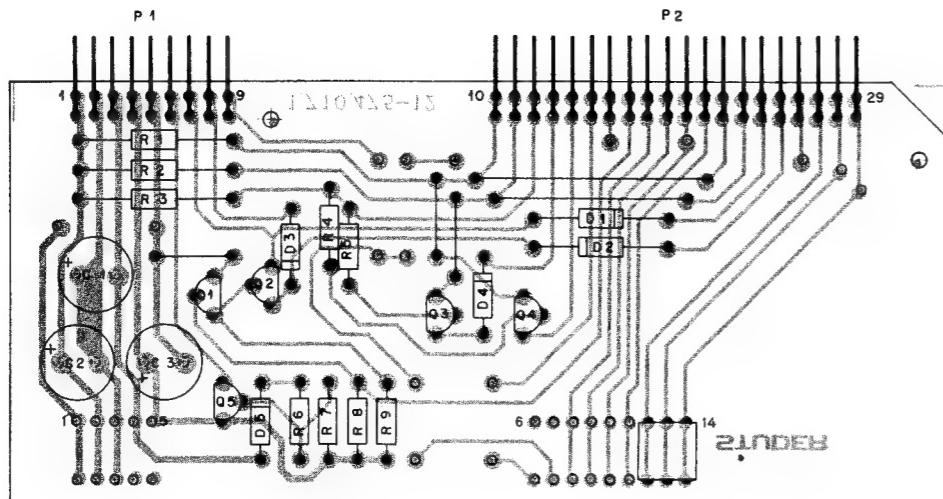
STUDER 81/02/27 RW INTERCONNECTION BOARD

1.710.470.00 PAGE 2

AUDIO LOGIC CONTROL PCB 1.710.475



AUDIO LOGIC CONTROL PCB 1.710.475



| IND. | PCS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|----------|----------|------------|---------|-----------------------------|--------|
| C.....+1 | | 59.22.4101 | 100 uF | -10% + 16V E1 | |
| C.....+2 | | 59.22.4101 | 100 uF | -10% + 16V E1 | |
| C.....+3 | | 59.22.2221 | 220 uF | -10% + 6,3V E1 | |
| D.....+1 | | 50.04.0125 | IN 4448 | Si | |
| D.....+2 | | 50.04.0125 | IN 4448 | Si | |
| D.....+3 | | 50.04.0125 | IN 4448 | Si | |
| D.....+4 | | 50.04.0125 | IN 4448 | Si | |
| D.....+5 | | 50.04.0119 | Z 15V | 5% 0.40W | |
| P.....+1 | | 54.01.0220 | 9-Pole | Pin-Strip | AMP |
| P.....+2 | | 54.01.0261 | 2C-Pole | Pin-Strip | AMP |
| Q.....+1 | | 50.03.0436 | BC 237 | NPN | |
| Q.....+2 | | 50.03.0436 | BC 237 | NPN | |
| Q.....+3 | | 50.03.0436 | BC 237 | NPN | |
| Q.....+4 | | 50.03.0436 | BC 237 | NPN | |
| Q.....+5 | | 50.03.0391 | ZN 4403 | BC 127-25 PNP | |
| R.....+1 | | 57.11.4333 | 33 kOhm | 5% 0.25W CF | |
| R.....+2 | | 57.11.4333 | 33 kOhm | 5% 0.25W CF | |
| R.....+3 | | 57.11.4103 | 33 kOhm | 5% 0.25W CF | |
| R.....+4 | | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| R.....+5 | | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| R.....+6 | | 57.11.4222 | 2-2kOhm | 5% 0.25W CF | |
| R.....+7 | | 57.11.4102 | 1 kOhm | 5% 0.25W CF | |
| R.....+8 | | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| R.....+9 | | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |

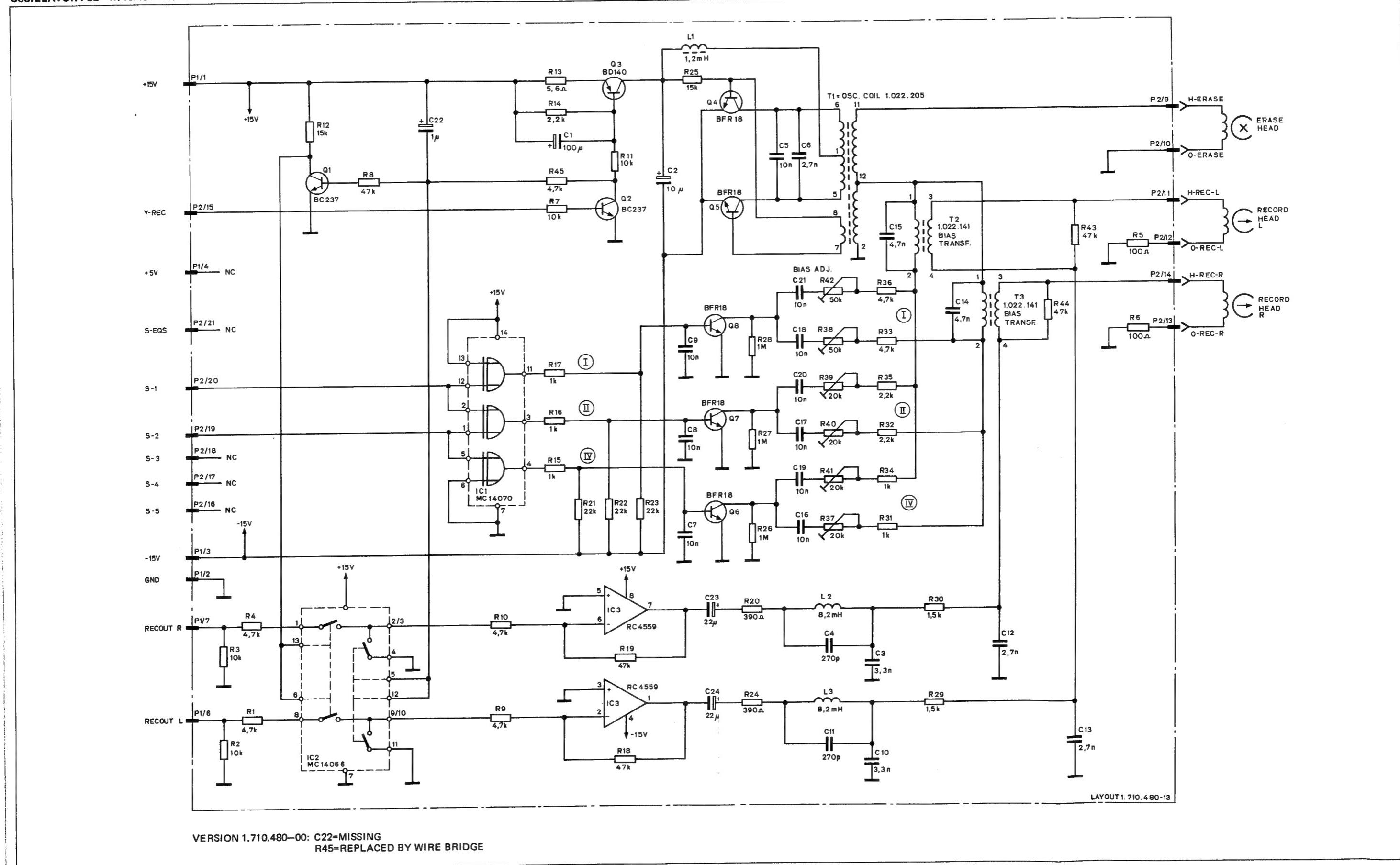
E1=Electrolytic,
CF=Carbon Film, Si=Silicon,

CRIG 86/12/10

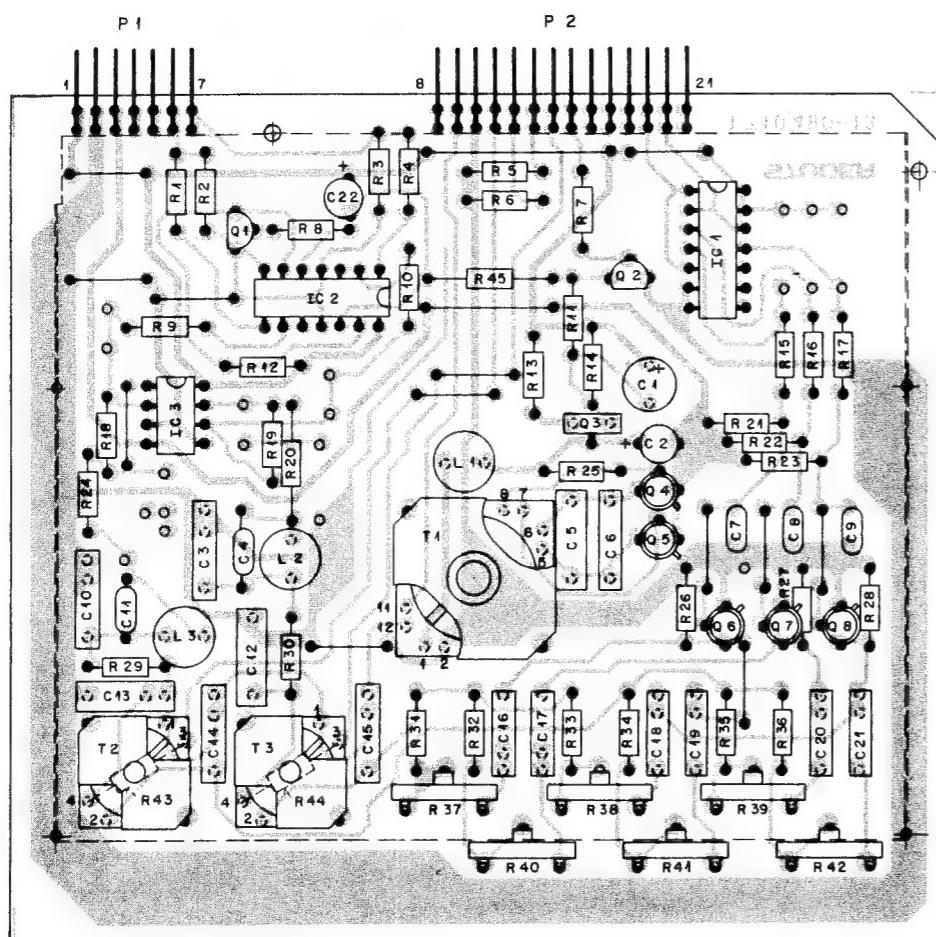
STUDER B1/02/27 RW AUDIO LOGIC CONTROL

1.710.475.00 PAGE 1

OSCILLATOR PCB 1.710.480-00/-81



OSCILLATOR PCB 1.710.480-00/-81



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|------------|-------------------|--------------|-----------------------------|--------|
| C.....1 | 59.22.3101 | 100 uF | -10%, 10V | E1 | |
| C.....2 | 59.22.6100 | 10 uF | -10%, 35V | E1 | |
| C.....3 | 59.11.6332 | 3.3 nF | 5%, 25V | PE | |
| C.....4 | 59.11.6331 | 270 pF | 5%, 25V | Cer | |
| C.....5 | 59.11.3103 | 10 nF | 5%, 25V | PC | |
| (01) | | | | | |
| C.....6 | 59.11.6272 | 2.7 nF | 5%, 25V | PC | |
| C.....7 | 59.32.3103 | 10 nF | 20%, 25V | Cer | |
| C.....8 | 59.32.3103 | 10 nF | 20%, 25V | Cer | |
| C.....9 | 59.32.3100 | 10 nF | 20%, 25V | Cer | |
| C.....10 | 59.32.4332 | 3.3 pF | 5%, 25V | PE | |
| C.....11 | 59.32.4271 | 270 pF | 5%, 25V | Cer | |
| C.....12 | 59.11.6272 | 2.7 nF | 5%, 25V | PC | |
| C.....13 | 59.11.6272 | 2.7 nF | 5%, 25V | PC | |
| C.....14 | 59.11.4472 | 4.7 nF | 5%, 25V | PC | |
| C.....15 | 59.11.4472 | 4.7 nF | 5%, 25V | PC | |
| C.....16 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| C.....17 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| C.....18 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| C.....19 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| C.....20 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| C.....21 | 59.31.4103 | 10 nF | 20%, 25V | PE | |
| (03) | | | | | |
| C.....22 | 59.22.8109 | 1 uF | 20%, 25V, E1 | | |
| IC.....1 | 50.07.0070 | MC 14070 | | CHMOS | M, F |
| IC.....2 | 50.07.0066 | MC 14066 | | CHMOS | M, F |
| IC.....3 | 50.09.0107 | RC 4559 | | Dual Op. Amp. | TI, RA |
| L.....1 | 62.02.2122 | L 1.2mH | 5% | | |
| L.....2 | 62.02.1822 | L 8.2mH | 5% | | |
| L.....3 | 62.02.1822 | L 8.2mH | 5% | | |
| P.....1 | 5%01.0223 | 7-Pole Pin-Strip | | AMP | |
| P.....2 | 5%02.0274 | 14-Pole Pin-Strip | | AMP | |
| Q.....1 | 50.03.0436 | BC 237 | | | |
| Q.....2 | 50.03.0436 | BC 237 | | | |
| Q.....3 | 50.03.0452 | BD 140 | | | |

STUDER 82/07/02 RW OSCILLATOR 1.710.480.81 PAGE 1

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|------------|----------|---------------|-----------------------------|--------|
| Q.....4 | 50.03.0434 | BFR 18 | | SGS | |
| Q.....5 | 50.03.0434 | BFR 18 | | SGS | |
| Q.....6 | 50.03.0434 | BFR 18 | | SGS | |
| Q.....7 | 50.03.0434 | BFR 18 | | SGS | |
| Q.....8 | 50.03.0434 | BFR 18 | | SGS | |
| R.....1 | 57.11.4472 | 4.7 kOhm | 5%, 0.25W, CF | | |
| R.....2 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....3 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....4 | 57.11.4472 | 4.7 kOhm | 5%, 0.25W, CF | | |
| R.....5 | 57.11.4101 | 100 Ohm | 5%, 0.25W, CF | | |
| R.....6 | 57.11.4101 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....7 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....8 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| R.....9 | 57.11.4472 | 47 kOhm | 5%, 0.25W, CF | | |
| R.....10 | 57.11.4472 | 47 kOhm | 5%, 0.25W, CF | | |
| R.....11 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....12 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....13 | 57.11.6569 | 5k Ohm | 5%, 0.25W, CF | | |
| R.....14 | 57.11.4222 | 2.2 kOhm | 5%, 0.25W, CF | | |
| R.....15 | 57.11.4102 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....16 | 57.11.4102 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....17 | 57.11.4102 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....18 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| R.....19 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| R.....20 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| R.....21 | 57.11.4223 | 22 kOhm | 5%, 0.25W, CF | | |
| R.....22 | 57.11.4223 | 22 kOhm | 5%, 0.25W, CF | | |
| R.....23 | 57.11.4223 | 22 kOhm | 5%, 0.25W, CF | | |
| R.....24 | 57.11.4391 | 390 Ohm | 5%, 0.25W, CF | | |
| R.....25 | 57.11.4153 | 15 kOhm | 5%, 0.25W, CF | | |
| R.....26 | 57.11.4105 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....27 | 57.11.4040 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....28 | 57.11.4105 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....29 | 57.11.4152 | 1.5 kOhm | 5%, 0.25W, CF | | |
| R.....30 | 57.11.4152 | 1.5 kOhm | 5%, 0.25W, CF | | |
| (02) | | | | | |
| R.....31 | 57.11.4102 | 1 kOhm | 5%, 0.25W, CF | | |

STUDER 82/07/02 RW OSCILLATOR 1.710.480.81 PAGE 2

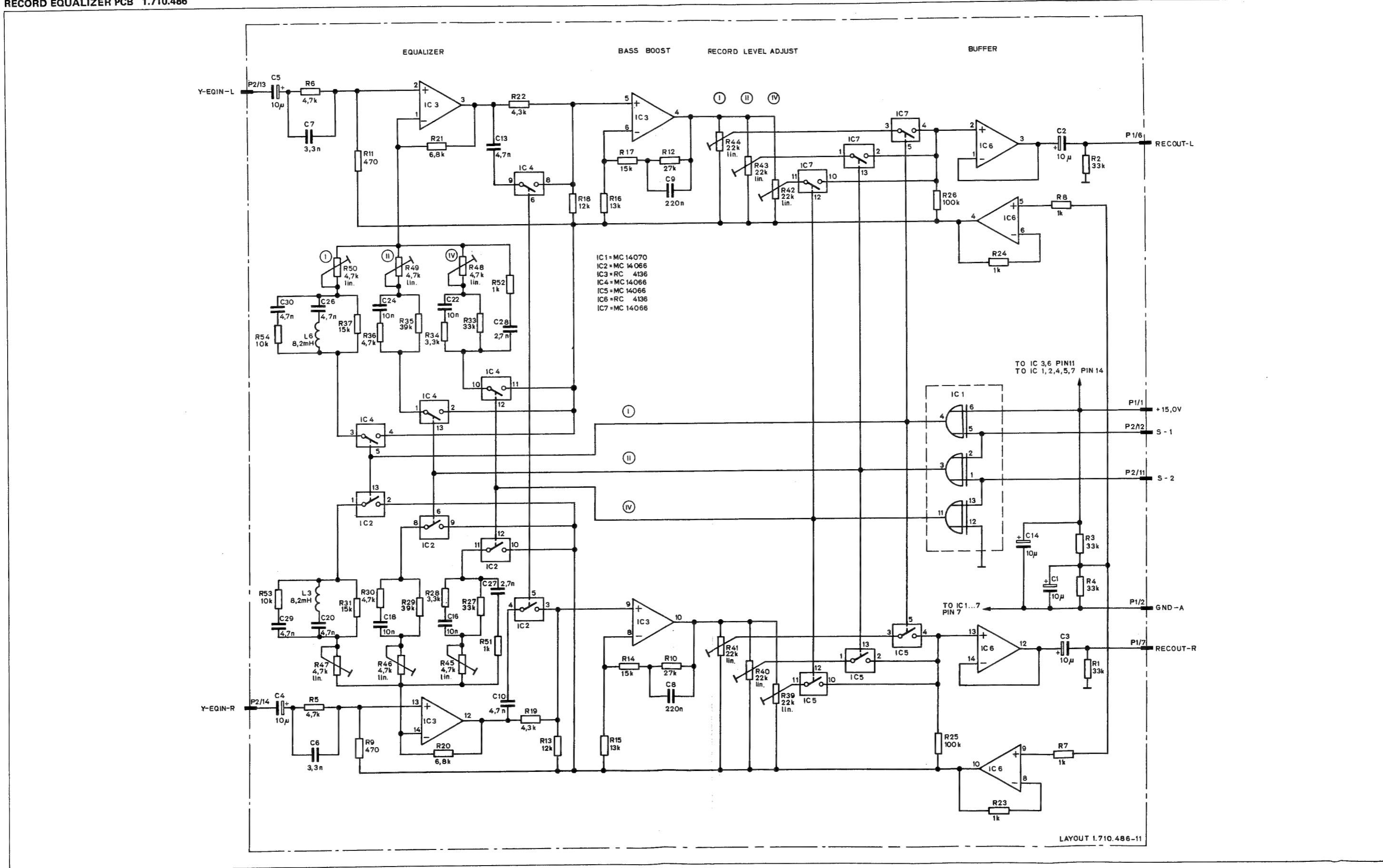
| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|------------|----------------------|-----------------------------|--------|
| (02) | R....32 | 57.11.4222 | 2.2 kOhm | 5%, 0.25W, CF | |
| (02) | R....33 | 57.11.4472 | 4.7 kOhm | 5%, 0.25W, CF | |
| (02) | R....34 | 57.11.4102 | 1 kOhm | 5%, 0.25W, CF | |
| (02) | R....35 | 57.11.4222 | 2.2 kOhm | 5%, 0.25W, CF | |
| (02) | R....36 | 57.11.4272 | 20 kOhm | 5%, 0.25W, CF | |
| R....37 | 58.19.0203 | 20 kOhm | 20%, 0.15W, Pot, Lin | | |
| R....38 | 58.19.0503 | 50 kOhm | 20%, 0.15W, Pot, Lin | | |
| R....39 | 58.19.0203 | 20 kOhm | 20%, 0.15W, Pot, Lin | | |
| R....40 | 58.19.0203 | 20 kOhm | 20%, 0.15W, Pot, Lin | | |
| R....41 | 58.19.0203 | 20 kOhm | 20%, 0.15W, Pot, Lin | | |
| R....42 | 58.19.0503 | 50 kOhm | 20%, 0.15W, Pot, Lin | | |
| (01) | R....43 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | |
| (01) | R....44 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | |
| (03) | R....45 | 57.11.4273 | 4.7 kOhm | 5%, 0.25W, CF | |

T.....1 L-022-205-00 Disc-Coil S
T.....2 L-022-141-00 HF-Transf. S
T.....3 L-022-141-00 HF-Transf. SE1=Electrolytic, Cer=Ceramic, PC=Polycarb., PE=Polyester
CF=Carbon Film, LIN=Linear
MANUFACTURER: TI=TEXAS INSTRUMENTS, M=MOTOROLA, F=FAIRCHILD,
SGS=SGS-ATES, S=STUDER

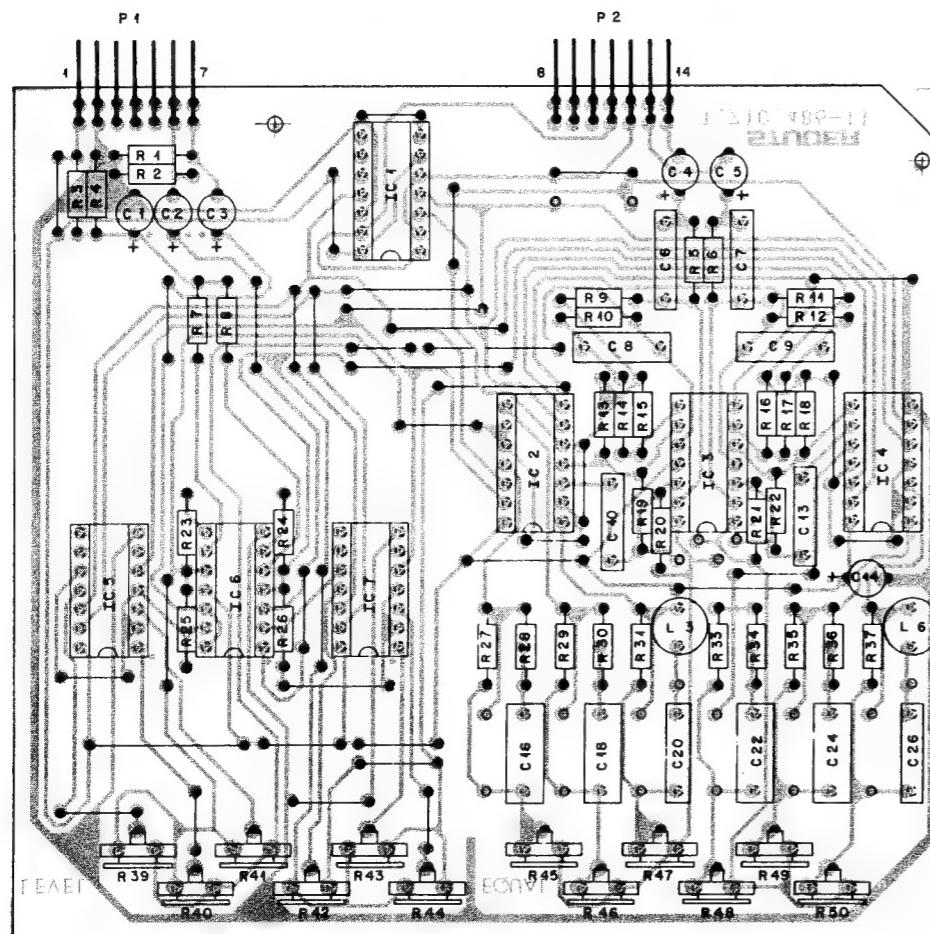
ORIG 81/01/06 (01) 81/03/25 (02) 81/06/04 (03) 82/05/03

STUDER 82/07/02 RW OSCILLATOR 1.710.480.81 PAGE 3

RECORD EQUALIZER PCB 1.710.486



RECORD EQUALIZER PCB 1.710.486



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|---------|------------|----------|-----------------------------|--------|
| C.....1 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....2 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....3 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....4 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....5 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....6 | | 59.11+6332 | 3.3 nF | 5%, 25V, PC | |
| C.....7 | | 59.11+6332 | 3.3 nF | 5%, 25V, PC | |
| C.....8 | | 59.11+6224 | 4.7 nF | 2.5%, 25V, HPETP | |
| C.....9 | | 59.11+6224 | 4.7 nF | 2.5%, 25V, HPETP | |
| C.....10 | | 59.11+6472 | 4.7 nF | 2.5%, 25V, PC | |
| C.....13 | | 59.11+6472 | 4.7 nF | 2.5%, 25V, PC | |
| C.....14 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....15 | | 59.22+6100 | 10 uF | -20%, 25V, E1 | |
| C.....18 | | 59.11+6333 | 10 nF | 2.5%, 25V, PC | |
| C.....20 | | 59.11+6472 | 4.7 nF | 2.5%, 25V, PC | |
| C.....22 | | 59.11+6103 | 10 nF | 2.5%, 25V, PC | |
| C.....24 | | 59.11+6103 | 10 nF | 2.5%, 25V, PC | |
| C.....26 | | 59.11+6472 | 4.7 nF | 2.5%, 25V, PC | |
| IC....1 | | 50.07.0070 | MC 14070 | CNOS | M+TI |
| IC....2 | | 50.07.0066 | MC 14066 | CNOS | M+TI |
| IC....3 | | 50.05+0232 | RC 4136 | Quad+ Op+ Amp+ | TI+RAY |
| IC....4 | | 50.07.0066 | MC 14066 | CNOS | M+TI |
| IC....5 | | 50.07.0066 | MC 14066 | CNOS | M+TI |
| IC....6 | | 50.05+0232 | RC 4136 | Quad+ Op+ Amp+ | TI+RAY |
| IC....7 | | 50.07.0066 | MC 14066 | CNOS | M+TI |
| L....3 | | 62.02+1822 | 8+2 mH | 5% | |
| L....6 | | 62.02+1822 | 8+2 mH | 5% | |
| P....1 | | 54.01+0223 | T-Pole | Pin-Strip | |
| P....2 | | 54.01+0223 | T-Pole | Pin-Strip | |
| R....1 | | 57.11+4333 | 33 kOhm | 5%, 0-25W, MF | |
| R....2 | | 57.11+4333 | 33 kOhm | 5%, 0-25W, MF | |
| R....3 | | 57.11+4333 | 33 kOhm | 5%, 0-25W, MF | |
| R....4 | | 57.11+4333 | 33 kOhm | 5%, 0-25W, MF | |

STUDER 82/02/08 RECORD EQUALIZER MK 2 1.710.486.00 PAGE 1

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|---------|------------|----------|-----------------------------|--------|
| R....5 | | 57.11+4472 | 4.7 kOhm | 5%, 0-25W, MF | |
| R....6 | | 57.11+4472 | 4.7 kOhm | 5%, 0-25W, MF | |
| R....7 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....8 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....9 | | 57.11+4102 | 470 Ohm | 5%, 0-25W, MF | |
| R....10 | | 57.11+4273 | 27 kOhm | 5%, 0-25W, MF | |
| R....11 | | 57.11+4471 | 470 uHm | 5%, 0-25W, MF | |
| R....12 | | 57.11+4273 | 27 kOhm | 5%, 0-25W, MF | |
| R....13 | | 57.11+4123 | 12 kOhm | 5%, 0-25W, MF | |
| R....14 | | 57.11+4133 | 15 kOhm | 5%, 0-25W, MF | |
| R....15 | | 57.11+4133 | 15 kOhm | 5%, 0-25W, MF | |
| R....16 | | 57.11+4133 | 13 kOhm | 5%, 0-25W, MF | |
| R....17 | | 57.11+4153 | 15 kOhm | 5%, 0-25W, MF | |
| R....18 | | 57.11+4123 | 12 kOhm | 5%, 0-25W, MF | |
| R....19 | | 57.11+4122 | 24 kOhm | 5%, 0-25W, MF | |
| R....20 | | 57.11+4469 | 6.8 kOhm | 5%, 0-25W, MF | |
| R....21 | | 57.11+6682 | 6.8 kOhm | 5%, 0-25W, MF | |
| R....22 | | 57.11+4222 | 2.2 kOhm | 5%, 0-25W, MF | |
| R....23 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....24 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....25 | | 57.11+4104 | 100 kOhm | 5%, 0-25W, MF | |
| R....26 | | 57.11+4104 | 100 kOhm | 5%, 0-25W, MF | |
| R....27 | | 57.11+4153 | 15 kOhm | 5%, 0-25W, MF | |
| R....28 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....29 | | 57.11+4273 | 27 kOhm | 5%, 0-25W, MF | |
| R....30 | | 57.11+4172 | 470 Ohm | 5%, 0-25W, MF | |
| R....31 | | 57.11+4153 | 15 kOhm | 5%, 0-25W, MF | |
| R....33 | | 57.11+4153 | 15 kOhm | 5%, 0-25W, MF | |
| R....34 | | 57.11+4102 | 1.0 kOhm | 5%, 0-25W, MF | |
| R....35 | | 57.11+4273 | 27 kOhm | 5%, 0-25W, MF | |
| R....36 | | 57.11+4172 | 470 Ohm | 5%, 0-25W, MF | |
| R....37 | | 57.11+4153 | 15 kOhm | 5%, 0-25W, MF | |
| R....39 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |
| R....40 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |
| R....41 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |
| R....42 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |
| R....43 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |

STUDER 82/02/08 RECORD EQUALIZER MK 2 1.710.486.00 PAGE 2

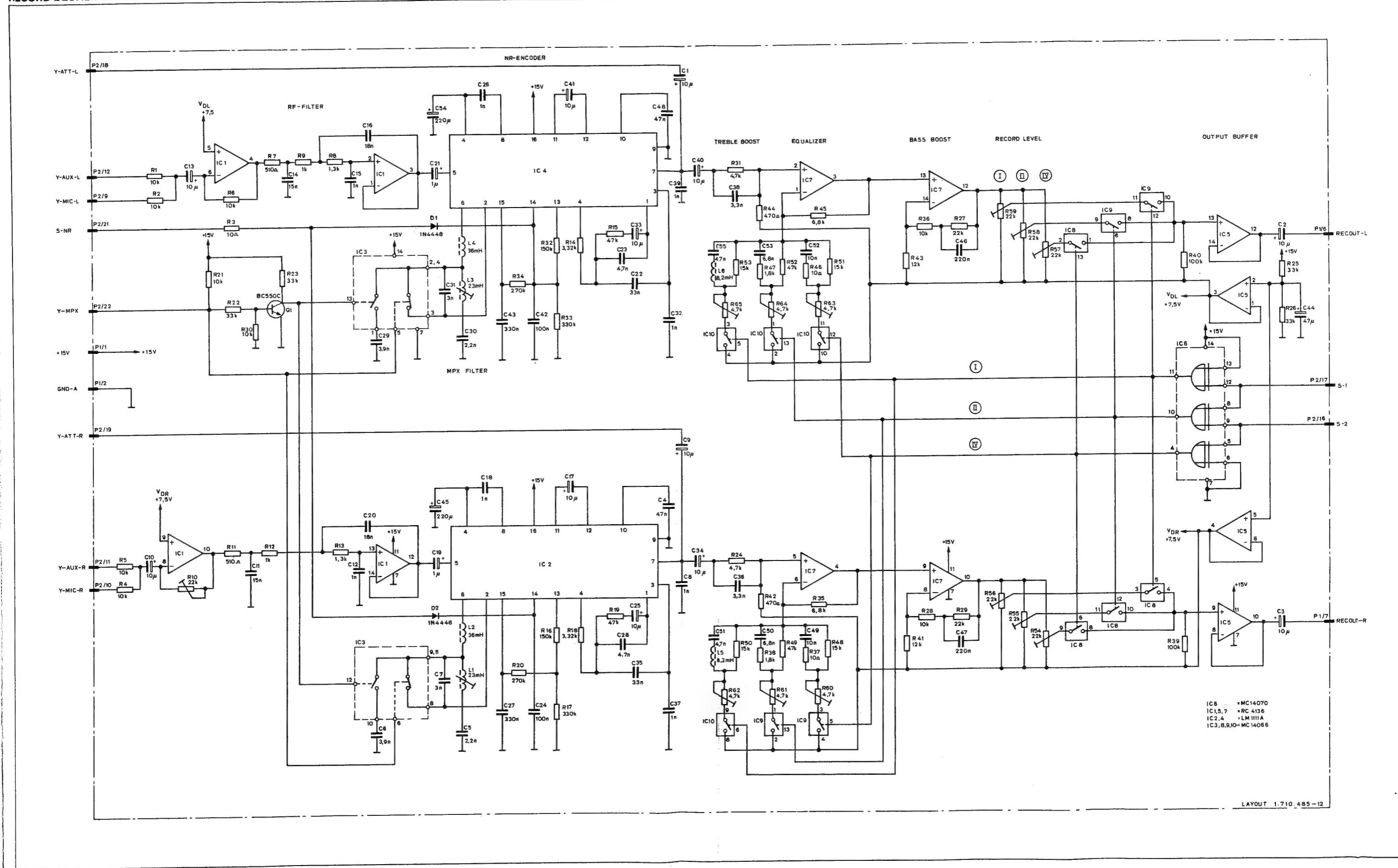
| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|---------|------------|----------|-----------------------------|--------|
| R....44 | | 58.02+4223 | 22 kOhm | 20%, +1 W, PCP+LIN | |
| R....45 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |
| R....46 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |
| R....47 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |
| R....48 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |
| R....49 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |
| R....50 | | 58.02+4472 | 4.7 kOhm | 20%, +1 W, PCP+LIN | |

STUDER 82/02/08 RECORD EQUALIZER MK 2 1.710.486.00 PAGE 2

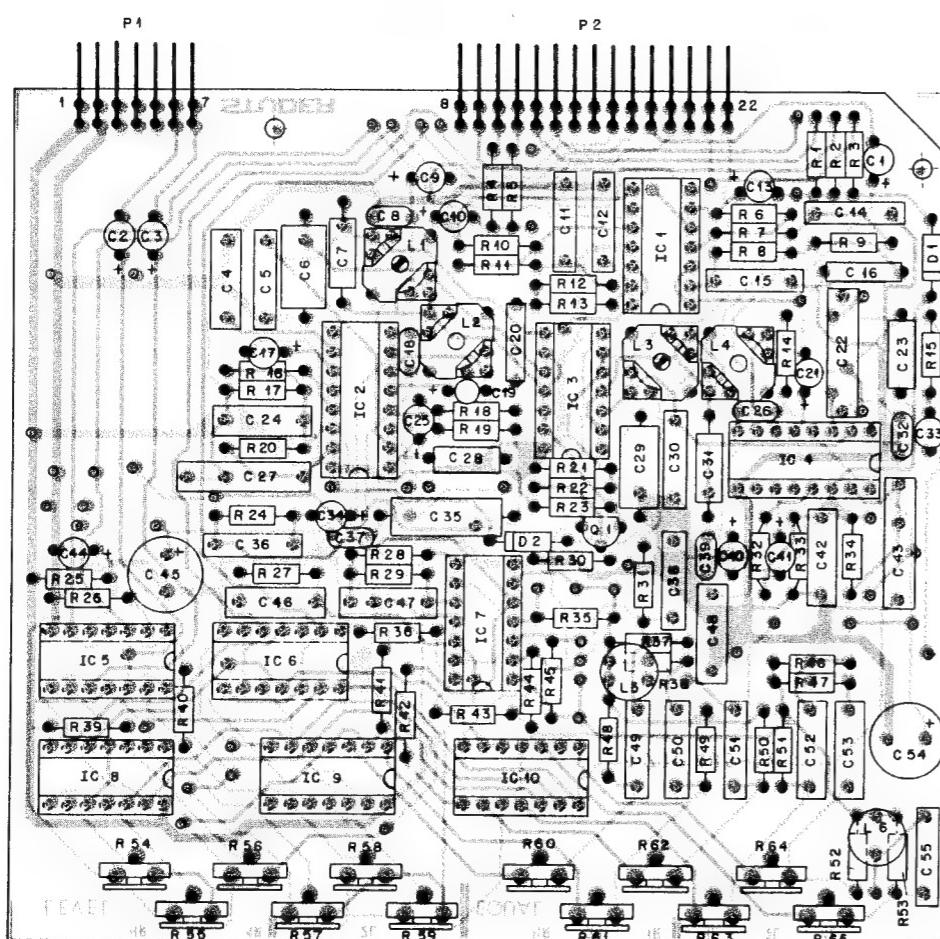
E=Electrolytic, T=Tantalum, C=Ceramic, PE=Polyester,
PP=Polypropylene, PC=Polycarbonate,
CF=Carbon Film, MF=Mica Film,
MANUFACTURER: Ray-Raytheon, S=Siemens, TI=TEXAS INSTRUMENTS,
M=Motorola

ORIG 82/01/13
STUDER 82/02/08 RECORD EQUALIZER MK 2 1.710.486.00 PAGE 3

RECORD EQUALIZER PCB 1.710.485



RECORD EQUALIZER PCB 1.710.485



| INC. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|----------|-------|-----------------------------|--------|
|------|---------|----------|-------|-----------------------------|--------|

| | | | | | |
|----------|------------|------------|-------------|-------------|--|
| (02) | C****.1 | 59.22.6100 | 10 uF | -10% 25V E1 | |
| C****.2 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.3 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.4 | 59.12.4473 | 47 nF | 5% 25V PE | | |
| C****.5 | 59.11.6222 | 2.2 nF | 5% 25V PE | | |
| C****.6 | 59.12.4472 | 3.3 nF | 5% 25V PS | | |
| C****.7 | 59.12.7302 | 3 nF | 10% 25V PS | | |
| C****.8 | 59.32.1102 | 1 nF | 20% 25V Cer | | |
| C****.9 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.10 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.11 | 59.11.6153 | 15 pF | 5% 25V PC | | |
| C****.12 | 59.11.6102 | 1 nF | 5% 25V PC | | |
| C****.13 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.14 | 59.12.4153 | 15 nF | 5% 25V PC | | |
| C****.15 | 59.11.6102 | 1 nF | 5% 25V PC | | |
| C****.16 | 59.12.4153 | 18 nF | 5% 25V PC | | |
| C****.17 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.18 | 59.32.1102 | 1 nF | 20% 25V E1 | | |
| C****.19 | 59.22.8109 | 1 uF | -20% 25V E1 | | |
| C****.20 | 59.12.4183 | 18 nF | 5% 25V PC | | |
| C****.21 | 59.11.6109 | 1 nF | -20% 25V TA | | |
| C****.22 | 59.12.7333 | 33 nF | 5% 25V PS | | |
| C****.23 | 59.12.7472 | 4.7 nF | 1% 25V PS | | |
| C****.24 | 59.31.6104 | 100 nF | -10% 25V PE | | |
| C****.25 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.26 | 59.11.6102 | 1 nF | 20% 25V Cer | | |
| C****.27 | 59.31.6136 | 330 nF | 10% 25V PE | | |
| C****.28 | 59.12.7472 | 4.7 nF | 1% 25V PS | | |
| C****.29 | 59.12.7392 | 3.9 nF | 5% 25V PS | | |
| C****.30 | 59.11.6222 | 2.2 nF | 5% 25V PC | | |
| C****.31 | 59.11.6102 | 1 nF | 20% 25V PS | | |
| C****.32 | 59.32.1102 | 1 nF | 20% 25V Cer | | |
| C****.33 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.34 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.35 | 59.12.7333 | 33 nF | 1% 25V PS | | |
| C****.36 | 59.12.7332 | 3.3 nF | 5% 25V PE | | |
| C****.37 | 59.32.1102 | 1 nF | 20% 25V Cer | | |

STUDER 81/05/12 RW RECORD AMPLIFIER 1.710.485.00 PAGE 1 STUDER 81/05/12 RW RECORD AMPLIFIER 1.710.485.00 PAGE 4

| INC. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|----------|-------|-----------------------------|--------|
|------|---------|----------|-------|-----------------------------|--------|

| | | | | | |
|-----------|------------|------------|-----------------|-----------|--|
| (01) | C****.38 | 59.11.6332 | 3.3 nF | 5% 25V PE | |
| C****.39 | 59.32.1102 | 1 nF | 20% 25V Cer | | |
| C****.40 | 59.22.6100 | 10 uF | -10% 25V E1 | | |
| C****.41 | 59.11.6109 | 100 nF | -10% 25V PE | | |
| C****.42 | 59.31.4106 | 100 nF | 10% 25V PE | | |
| C****.43 | 59.31.4334 | 310 nF | 10% 25V PE | | |
| C****.44 | 59.22.3470 | 47 uF | -10% 10V E1 | | |
| C****.45 | 59.22.3221 | 220 uF | -10% 10V E1 | | |
| C****.46 | 59.11.6102 | 220 uF | -10% 10V E1 | | |
| C****.47 | 59.31.4224 | 220 nF | 10% 25V PE | | |
| C****.48 | 59.11.4473 | 47 nF | 5% 25V PE | | |
| C****.49 | 59.11.4193 | 10 nF | 2.5% 25V PC | | |
| C****.50 | 59.11.3682 | 6.8 nF | 2.5% 25V PC | | |
| C****.51 | 59.11.3682 | 2.2 nF | 2.5% 25V PC | | |
| C****.52 | 59.11.4103 | 10 nF | 2.5% 25V PC | | |
| C****.53 | 59.11.3682 | 6.8 nF | 2.5% 25V PC | | |
| C****.54 | 59.22.3221 | 220 uF | -10% 10V E1 | | |
| C****.55 | 59.11.4472 | 4.7 nF | 2.5% 25V PC | | |
| D****.1 | 50.G4.712K | 1N4468 | SI | any | |
| D****.2 | 50.C4.0125 | 1N4468 | SI | any | |
| IC****.1 | 5E.05.4132 | PC 4136 | Quad. Op. Amp. | T1, RA | |
| IC****.2 | 5E.11.0105 | LM 1111A | Quad. Op. Proc. | T1, RA | |
| IC****.3 | 50.C4.0066 | PC14266 | CMOS | M, TI | |
| IC****.4 | 5E.11.0105 | LM 1111A | Quad. Op. Proc. | M, TI | |
| IC****.5 | 50.C5.0232 | PC 4136 | Quad. Op. Amp. | T1, RA | |
| IC****.6 | 50.C5.0232 | LM 14070 | CMOS | M, TI | |
| IC****.7 | 50.C7.0324 | PC 4136 | Quad. Op. Amp. | T1, RA | |
| IC****.8 | 50.C7.0324 | PC14266 | CMOS | M, TI | |
| IC****.9 | 50.C7.0324 | PC14266 | CMOS | M, TI | |
| IC****.10 | 50.C7.0324 | PC14266 | CMOS | M, TI | |

E1=Electrolytic, Cer=Ceramic, PC=Polycarbonate, TA=Tantalum, PE=Polyester, PS=Polystyrene, SI=Silicon, CF=Carbon Film, MF=Metal Film, PCF=Pot,Meter Carbon Film, MANUFACTURER: TIP-TEXAS INSTRUMENTS M=HOTOROLA N=NATIONAL RAYTHEON SYSTEMS CIRCUIT 81/05/02 (01) 81/04/01 (02) 81/04/15

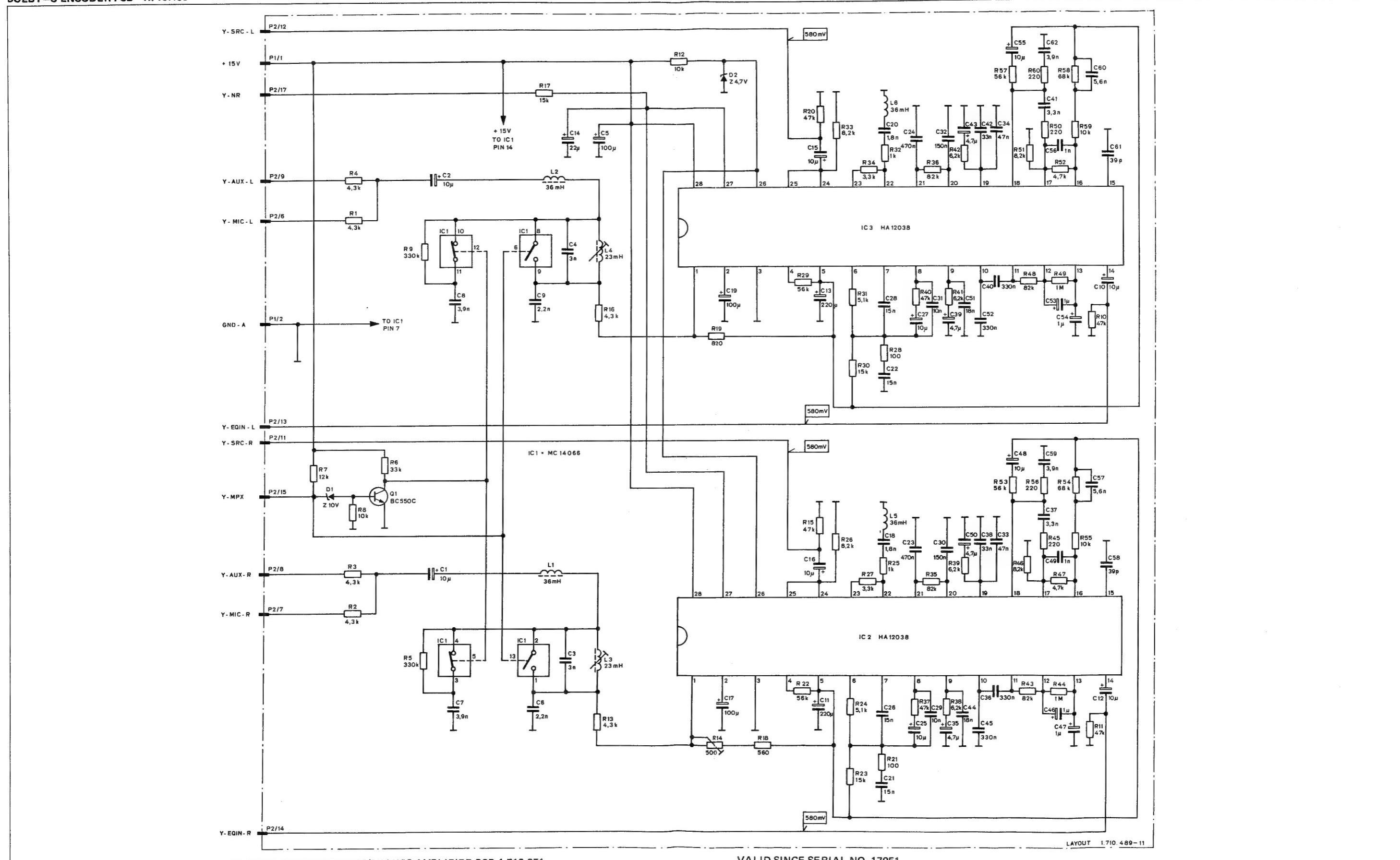
STUDER 81/05/12 PW RECORD AMPLIFIER 1.710.485.00 PAGE 2 STUDER 81/05/12 PW RECORD AMPLIFIER 1.710.485.00 PAGE 5

| INC. | PCS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|----------|-------|-----------------------------|--------|
|------|---------|----------|-------|-----------------------------|--------|

| | | | | | |
|----------|------------|------------|---------------|---------------|--|
| L****.5 | 62.02.1822 | L 8.2 mH | | | |
| L****.6 | 62.02.1822 | L P-2 mH | | | |
| P****.1 | 54.01.0223 | 7-Pole | Pin-Strip | AMP | |
| P****.2 | 54.01.0275 | 15-Pole | Pin-Strip | AMP | |
| Q****.1 | 50.G3.0497 | BC 550 C | NPN | | |
| R****.1 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.2 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.3 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.4 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.5 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| (02) | R****.6 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R****.7 | 57.11.4511 | 510 Ohm | 2%, 0.25W, MF | | |
| R****.8 | 57.39.1301 | 1.3 kOhm | 1%, 0.25W, CF | | |
| R****.9 | 57.39.1301 | 1.3 kOhm | 1%, 0.25W, CF | | |
| R****.10 | 57.39.1301 | 1.3 kOhm | 1%, 0.25W, CF | | |
| (02) | R****.11 | 57.11.4511 | 510 Ohm | 2%, 0.25W, MF | |
| R****.12 | 57.39.1095 | 1 kOhm | 1%, 0.25W, CF | | |
| R****.13 | 57.39.1301 | 1.3 kOhm | 1%, 0.25W, CF | | |
| R****.14 | 57.39.1301 | 1.3 kOhm | 1%, 0.25W, CF | | |
| R****.15 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| R****.16 | 57.11.4154 | 150 kOhm | 5%, 0.25W, CF | | |
| R****.17 | 57.11.4334 | 330 kOhm | 5%, 0.25W, CF | | |
| R****.18 | 57.39.3321 | 3.37 kOhm | 1%, 0.25W, CF | | |
| R****.19 | 57.39.3321 | 3.37 kOhm | 1%, 0.25W, CF | | |
| R****.20 | 57.11.4274 | 270 kOhm | 5%, 0.25W, CF | | |
| R****.21 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.22 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R****.23 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R****.24 | 57.11.4472 | 47 kOhm | 5%, 0.25W, CF | | |
| R****.25 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R****.26 | 57.11.4333 | 33 kOhm | 5%, 0.25W, CF | | |
| R****.27 | 57.11.4223 | 22 kOhm | 5%, 0.25W, CF | | |
| R****.28 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| R****.29 | 57.11.4223 | 22 kOhm | 5%, 0.25W, CF | | |

STUDER 81/05/12 RW RECORD AMPLIFIER 1.710.485.00 PAGE 3

DOLBY-C ENCODER PCB 1.710.489

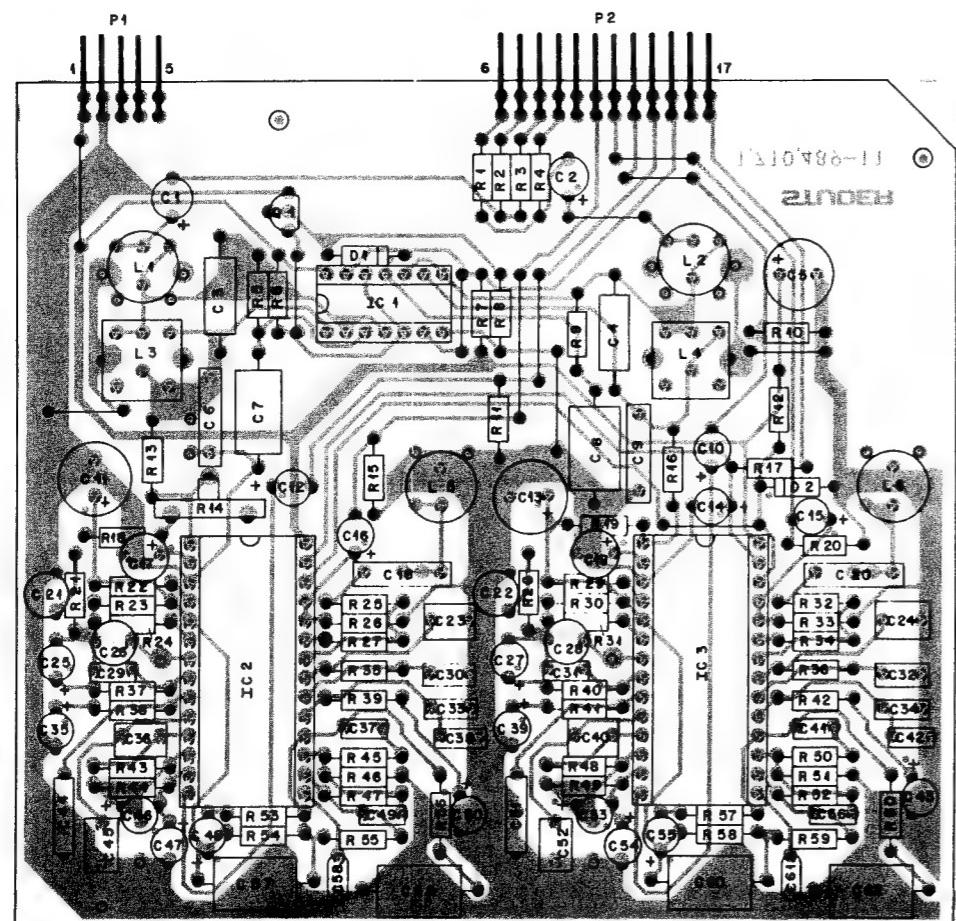


DOLBY-C ENCODER PCB 1.710.489 ONLY IN CONNECTION WITH MIC/PHONES AMPLIFIER PCB 1.710.351

VALID SINCE SERIAL NO. 17051

LAYOUT 1.710.489-11

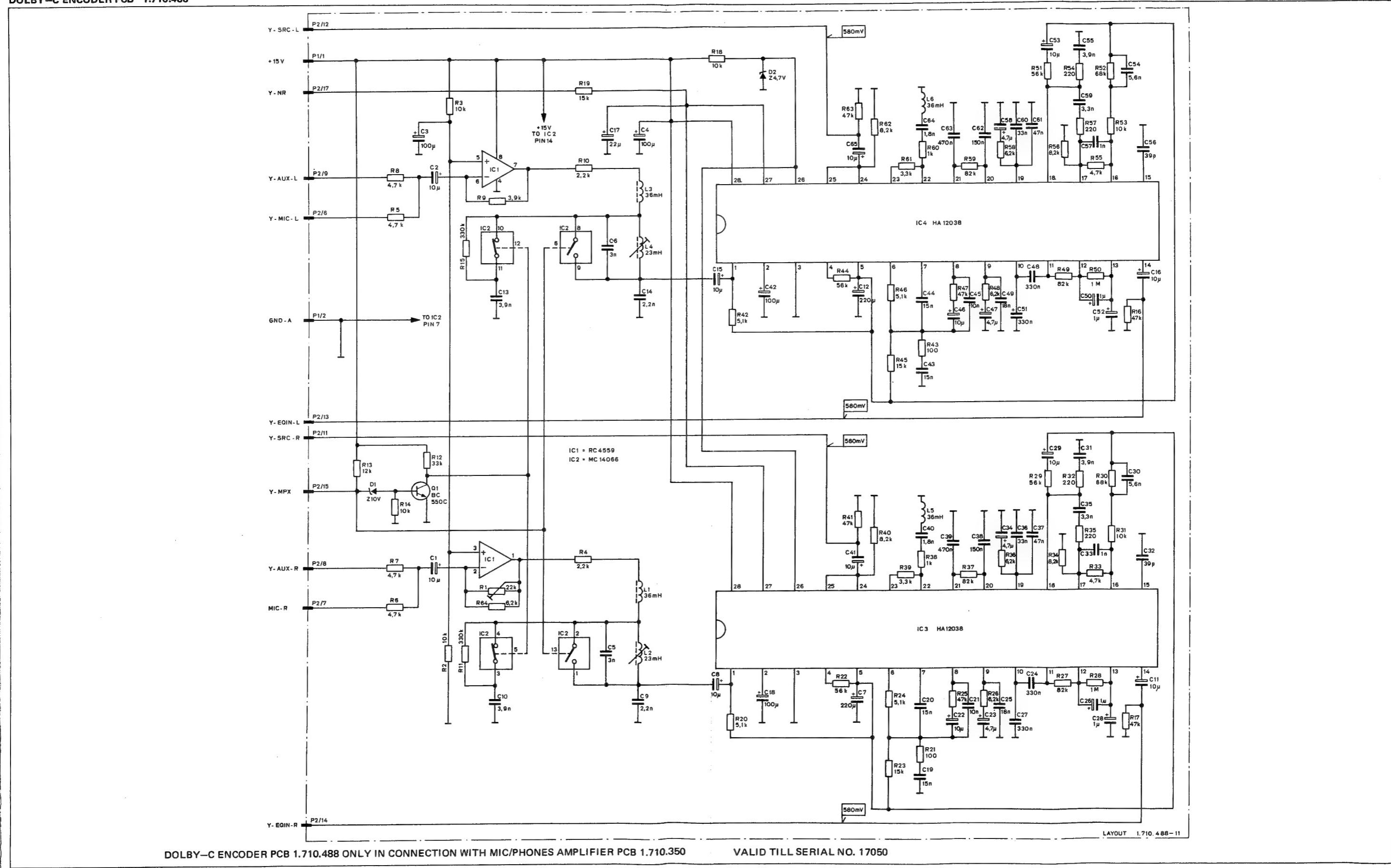
DOLBY-C ENCODER PCB 1.710.489



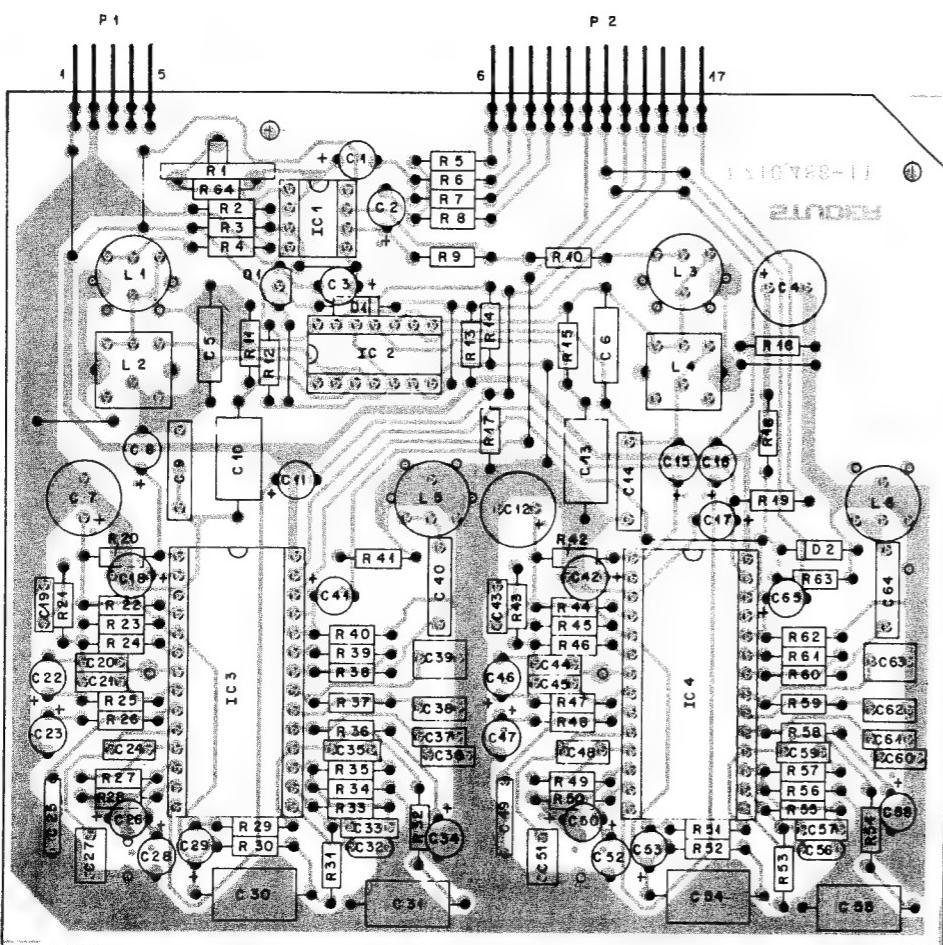
| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|---------|-------------|--------|-----------------------------|--------|----------|------------|----------|---------------|-----------------------------|--------|
| C.....1 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....30 | 57.11.4153 | 15 kOhm | 5%, 0.25W, CF | | |
| C.....2 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....31 | 57.11.4512 | 5+1 kOhm | 5%, 0.25W, CF | | |
| C.....3 | | 59.22.6100 | 3 nF | 1%, 25V, PS | | R.....32 | 57.11.3102 | 1 kOhm | 1%, 0.25W, CF | | |
| C.....4 | | 59.22.7302 | 10 uF | -10%, 25V, PS | | R.....33 | 57.11.4472 | 8+2 kOhm | 5%, 0.25W, CF | | |
| C.....5 | | 59.22.4101 | 100 uF | -20%, 16V, E1 | | R.....34 | 57.11.3332 | 32 kOhm | 1%, 0.25W, CF | | |
| C.....6 | | 59.11.6222 | 2+2 nF | 5%, 25V, PS | | R.....35 | 57.11.4823 | 82 kOhm | 5%, 0.25W, CF | | |
| C.....7 | | 59.12.7392 | 3+9 nF | 2%, 25V, PS | | R.....36 | 57.11.4823 | 82 kOhm | 5%, 0.25W, CF | | |
| C.....8 | | 59.12.6100 | 3+9 nF | 2%, 25V, PS | | R.....37 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| C.....9 | | 59.12.6100 | 2+2 nF | 5%, 25V, PS | | R.....38 | 57.11.4472 | 6+2 kOhm | 5%, 0.25W, CF | | |
| C.....10 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....39 | 57.11.4472 | 6+2 kOhm | 5%, 0.25W, CF | | |
| C.....11 | | 59.22.3221 | 220 uF | -10%, 10V, E1 | | R.....40 | 57.11.4473 | 47 kOhm | 5%, 0.25W, CF | | |
| C.....12 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....41 | 57.11.4472 | 6+2 kOhm | 5%, 0.25W, CF | | |
| C.....13 | | 59.22.3221 | 220 uF | -10%, 10V, E1 | | R.....42 | 57.11.4472 | 6+2 kOhm | 5%, 0.25W, CF | | |
| C.....14 | | 59.22.6100 | 2+2 nF | 2%, 25V, E1 | | R.....43 | 57.11.4473 | 82 kOhm | 5%, 0.25W, CF | | |
| C.....15 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....44 | 57.11.4473 | 100 Ohm | 5%, 0.25W, CF | | |
| C.....16 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....45 | 57.11.4473 | 220 Ohm | 5%, 0.25W, CF | | |
| C.....17 | | 59.22.3101 | 100 uF | -10%, 10V, E1 | | R.....46 | 57.11.4472 | 6+2 kOhm | 5%, 0.25W, CF | | |
| C.....18 | | 59.11.7182 | 1+8 nF | 2.5%, 25V, PC | | R.....47 | 57.11.4472 | 6+7 kOhm | 5%, 0.25W, CF | | |
| C.....19 | | 59.21.11.01 | 100 uF | -10%, 10V, E1 | | R.....48 | 57.11.4473 | 82 kOhm | 5%, 0.25W, CF | | |
| C.....20 | | 59.11.7182 | 1+8 nF | 2.5%, 25V, PC | | R.....49 | 57.11.4473 | 100 Ohm | 5%, 0.25W, CF | | |
| C.....21 | | 59.06.0153 | 15 nF | 10%, 25V, PE | | R.....50 | 57.11.4471 | 220 Ohm | 5%, 0.25W, CF | | |
| C.....22 | | 59.06.0153 | 15 nF | 10%, 25V, PE | | R.....51 | 57.11.4472 | 8+2 kOhm | 5%, 0.25W, CF | | |
| C.....23 | | 59.06.0474 | 470 nF | 10%, 25V, PE | | R.....52 | 57.11.4472 | 4.7 kOhm | 5%, 0.25W, CF | | |
| C.....24 | | 59.06.0474 | 470 nF | 10%, 25V, PE | | R.....53 | 57.11.4473 | 56 kOhm | 5%, 0.25W, CF | | |
| C.....25 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....54 | 57.11.4473 | 82 kOhm | 5%, 0.25W, CF | | |
| C.....26 | | 59.06.0153 | 15 nF | 10%, 25V, PE | | R.....55 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| C.....27 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | R.....56 | 57.11.4471 | 220 Ohm | 5%, 0.25W, CF | | |
| C.....28 | | 59.06.0153 | 15 nF | 10%, 25V, PE | | R.....57 | 57.11.4563 | 56 kOhm | 5%, 0.25W, CF | | |
| C.....29 | | 59.06.0403 | 10 nF | 10%, 25V, PS | | R.....58 | 57.11.4483 | 68 kOhm | 5%, 0.25W, CF | | |
| C.....30 | | 59.06.0404 | 10 nF | 10%, 25V, PE | | R.....59 | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | | |
| C.....31 | | 59.06.0103 | 10 nF | 10%, 25V, PE | | R.....60 | 57.11.4421 | 220 Ohm | 5%, 0.25W, CF | | |
| C.....32 | | 59.06.0154 | 150 nF | 10%, 25V, PE | | | | | | | |
| C.....33 | | 59.06.5473 | 47 nF | 5%, 25V, PE | | | | | | | |
| C.....34 | | 59.06.5473 | 47 nF | 5%, 25V, PE | | | | | | | |
| C.....35 | | 59.06.5479 | 47 nF | 10%, 25V, E1 | | | | | | | |
| C.....36 | | 59.06.0334 | 330 nF | 10%, 25V, PE | | | | | | | |
| C.....37 | | 59.05.1332 | 3+3 nF | 2%, 25V, PE | | | | | | | |

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|---------|------------|--------|-----------------------------|--------|---------|------------|----------|---------------|-----------------------------|--------|
| C....38 | | 59.06.5333 | 33 nF | 5%, 25V, PE | | C....38 | 59.06.5333 | 33 nF | 5%, 25V, PE | | |
| C....39 | | 59.22.8419 | 4.7 uF | -10%, 25V, E1 | | C....39 | 59.22.8419 | 330 nF | 10%, 25V, PE | | |
| C....40 | | 59.06.0334 | 330 nF | 10%, 25V, PE | | C....41 | 59.05.1332 | 3+3 nF | 2%, 25V, PE | | |
| C....41 | | 59.06.0334 | 33 nF | 5%, 25V, PE | | C....42 | 59.06.5333 | 33 nF | 5%, 25V, PE | | |
| C....42 | | 59.06.5333 | 33 nF | 5%, 25V, PE | | C....43 | 59.22.8419 | 4+7 nF | -10%, 25V, E1 | | |
| C....43 | | 59.22.8419 | 4+7 nF | -10%, 25V, E1 | | C....44 | 59.12.4183 | 18 nF | 5%, 25V, PC | | |
| C....44 | | 59.12.4183 | 330 nF | 10%, 25V, PE | | C....45 | 59.06.0334 | 330 nF | 10%, 25V, PE | | |
| C....45 | | 59.22.8109 | 1 uF | -10%, 25V, E1 | | C....46 | 59.22.8109 | 1 uF | -10%, 25V, E1 | | |
| C....46 | | 59.22.8109 | 1 uF | -10%, 25V, E1 | | C....47 | 59.22.8109 | 10 uF | -10%, 25V, E1 | | |
| C....47 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | C....48 | 59.22.6100 | 10 uF | -10%, 25V, E1 | | |
| C....48 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | C....49 | 59.22.6102 | 10 uF | -10%, 25V, PE | | |
| C....49 | | 59.22.6102 | 10 uF | -10%, 25V, PE | | C....50 | 59.22.8479 | 4.7 uF | -10%, 25V, E1 | | |
| C....50 | | 59.22.8479 | 4.7 uF | -10%, 25V, E1 | | C....51 | 59.12.4183 | 18 nF | 5%, 25V, PC | | |
| C....51 | | 59.12.4183 | 18 nF | 5%, 25V, PC | | C....52 | 59.06.0334 | 330 nF | 10%, 25V, PE | | |
| C....52 | | 59.06.0334 | 330 nF | 10%, 25V, PE | | C....53 | 59.22.6100 | 1 uF | -10%, 25V, E1 | | |
| C....53 | | 59.22.6100 | 1 uF | -10%, 25V, E1 | | C....54 | 59.22.8109 | 1 uF | -10%, 25V, E1 | | |
| C....54 | | 59.22.8109 | 1 uF | -10%, 25V, E1 | | C....55 | 59.22.6100 | 10 uF | -10%, 25V, E1 | | |
| C....55 | | 59.22.6100 | 10 uF | -10%, 25V, E1 | | C....56 | 59.06.0102 | 1 nF | 10%, 25V, PE | | |
| C....56 | | 59.06.0102 | 1 nF | 10%, 25V, PE | | C....57 | 59.12.7562 | 5.6 nF | 2%, 25V, PS | | |
| C....57 | | 59.12.7562 | 3.9 pF | 10%, 25V, CER | | C....58 | 59.34.2390 | 3.9 nF | 2%, 25V, PS | | |
| C....58 | | 59.34.2390 | 3.9 nF | 2%, 25V, PS | | C....59 | 59.12.7562 | 2.6 nF | 2%, 25V, PS | | |
| C....59 | | 59.12.7562 | 3.9 pF | 10%, 25V, CER | | C....60 | 59.34.2390 | 3.9 nF | 2%, 25V, PS | | |
| C....60 | | 59.34.2390 | 3.9 nF | 2%, 25V, PS | | C....61 | 59.12.7392 | 3.9 nF | 2%, 25V, PS | | |

DOLBY-C ENCODER PCB 1.710.488



DOLBY-C ENCODER PCB 1.710.488



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|----------|------------|--------|-----------------------------|--------|----------|-------------|----------|--------------|-----------------------------|--------|
| (01) | C.....1 | 59.22+6100 | 10 uF | -10% 25V | E1 | R.....26 | 57.11.44622 | 6.2 kOhm | 5%, 0.25W CF | | |
| | C.....2 | 59.22+6100 | 10 uF | -10% 25V | E1 | R.....27 | 57.11.44623 | 82 kOhm | 5%, 0.25W CF | | |
| | C.....3 | 59.22+6101 | 100 uF | -10% 25V | E1 | R.....28 | 57.11.44105 | 1 kOhm | 5%, 0.25W CF | | |
| | C.....4 | 59.25+3101 | 100 uF | -10% 25V | E1 | R.....29 | 57.11.44103 | 56 kOhm | 5%, 0.25W CF | | |
| | C.....5 | 59.12+7302 | 3 nF | 1% 25V | PS | R.....30 | 57.11.44683 | 66 kOhm | 5%, 0.25W CF | | |
| | C.....6 | 59.12+7302 | 3 nF | 1% 25V | PS | R.....31 | 57.11.44103 | 10 kOhm | 5%, 0.25W CF | | |
| | C.....7 | 59.22+3221 | 220 uF | -10% 10V | E1 | R.....32 | 57.11.44223 | 220 Ohm | 5%, 0.25W CF | | |
| | C.....8 | 59.22+3221 | 10 uF | -10% 10V | E1 | R.....33 | 57.11.44672 | 4.7 kOhm | 5%, 0.25W CF | | |
| | C.....9 | 59.11+6222 | 242 nF | 5% 25V | PS | R.....34 | 57.11.44222 | 8.2 kOhm | 5%, 0.25W CF | | |
| | C.....10 | 59.12+7392 | 3.9 nF | 2% 25V | PS | R.....35 | 57.11.44231 | 1.2 kOhm | 5%, 0.25W CF | | |
| | C.....11 | 59.22+6100 | 10 uF | -10% 25V | E1 | R.....36 | 57.11.44622 | 6.2 kOhm | 5%, 0.25W CF | | |
| | C.....12 | 59.22+3221 | 220 uF | -10% 10V | E1 | R.....37 | 57.11.44233 | 82 kOhm | 5%, 0.25W CF | | |
| | C.....13 | 59.22+3221 | 3.9 nF | 2% 25V | PS | R.....38 | 57.11.31023 | 1 kOhm | 1%, 0.25W CF | | |
| | C.....14 | 59.11+6222 | 242 nF | 5% 25V | PS | R.....39 | 57.11.44672 | 3.3 kOhm | 3% 0.25W CF | | |
| | C.....15 | 59.22+6100 | 10 uF | -10% 25V | E1 | R.....40 | 57.11.44622 | 8.2 kOhm | 5%, 0.25W CF | | |
| | C.....16 | 59.22+6100 | 10 uF | -10% 25V | E1 | R.....41 | 57.11.44673 | 4.7 kOhm | 5%, 0.25W CF | | |
| | C.....17 | 59.22+5220 | 22 uF | -10% 25V | E1 | R.....42 | 57.11.4512 | 51 kOhm | 5%, 0.25W CF | | |
| | C.....18 | 59.22+3101 | 10 uF | -10% 10V | E1 | R.....43 | 57.11.44103 | 100 Ohm | 5%, 0.25W CF | | |
| | C.....19 | 59.06+0153 | 1.9 nF | 10% 25V | PE | R.....44 | 57.11.4563 | 56 kOhm | 5%, 0.25W CF | | |
| | C.....20 | 59.06+0153 | 1.5 nF | 10% 25V | PE | R.....45 | 57.11.4453 | 15 kOhm | 5%, 0.25W CF | | |
| | C.....21 | 59.06+0103 | 1.0 nF | 10% 25V | PE | R.....46 | 57.11.4512 | 51 kOhm | 5%, 0.25W CF | | |
| | C.....22 | 59.30+4103 | 10 uF | 20% 16V | Ta | R.....47 | 57.11.4473 | 47 kOhm | 5%, 0.25W CF | | |
| | C.....23 | 59.22+8479 | 4.7 uF | -10% 25V | E1 | R.....48 | 57.11.44622 | 6.2 kOhm | 5%, 0.25W CF | | |
| | C.....24 | 59.06+0154 | 330 pF | 10% 25V | PE | R.....49 | 57.11.44823 | 82 kOhm | 5%, 0.25W CF | | |
| | C.....25 | 59.12+183 | 1.8 nF | 5% 25V | PS | R.....50 | 57.11.4453 | 1 kOhm | 5%, 0.25W CF | | |
| | C.....26 | 59.22+8109 | 1 uF | -10% 25V | E1 | R.....51 | 57.11.4563 | 56 kOhm | 5%, 0.25W CF | | |
| | C.....27 | 59.06+0334 | 330 nF | 10% 25V | PE | R.....52 | 57.11.44983 | 68 kOhm | 5%, 0.25W CF | | |
| | C.....28 | 59.22+8109 | 10 uF | -10% 25V | E1 | R.....53 | 57.11.44103 | 10 kOhm | 5%, 0.25W CF | | |
| | C.....29 | 59.06+0103 | 10 uF | -10% 25V | Ta | R.....54 | 57.11.44221 | 220 Ohm | 5%, 0.25W CF | | |
| | C.....30 | 59.12+7562 | 5.6 nF | 2% 25V | PS | R.....55 | 57.11.44222 | 4.7 kOhm | 5%, 0.25W CF | | |
| | C.....31 | 59.12+7392 | 3.9 nF | 2% 25V | PS | R.....56 | 57.11.44823 | 8.2 kOhm | 5%, 0.25W CF | | |
| | C.....32 | 59.34+2390 | 39 pF | 10% 25V | Cer | R.....57 | 57.11.44221 | 220 Ohm | 5%, 0.25W CF | | |
| | C.....33 | 59.06+0102 | 1 nF | 10% 25V | PE | R.....58 | 57.11.44622 | 6.2 kOhm | 5%, 0.25W CF | | |
| | C.....34 | 59.06+0102 | 4.7 uF | -20% 25V | E1 | R.....59 | 57.11.44823 | 82 kOhm | 5%, 0.25W CF | | |
| | C.....35 | 59.05+0332 | 3.3 nF | 2% 25V | PE | R.....60 | 57.11.4453 | 1 kOhm | 5%, 0.25W CF | | |
| | C.....36 | 59.06+0333 | 33 nF | 10% 25V | PE | R.....61 | 57.11.3332 | 3.1 kOhm | 1%, 0.25W CF | | |
| | C.....37 | 59.06+0473 | 47 nF | 10% 25V | PE | R.....62 | 57.11.44923 | 8.2 kOhm | 5%, 0.25W CF | | |

STUDER 82/05/26 RW DOLBY-C ENCODER

1.710.488.00 PAGE 1

STUDER 82/05/26 RW DOLBY-C ENCODER

1.710.488.00 PAGE 4

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|------------|----------|----------|-----------------------------|--------|
| C.....38 | 59.06+0154 | 150 nF | 10% 25V | PE | |
| C.....39 | 59.06+0474 | 470 nF | 10% 25V | PE | |
| C.....40 | 59.11+6182 | 1.8 nF | 2.5% 25V | PC | |
| C.....41 | 59.22+6100 | 10 uF | -10% 25V | E1 | |
| C.....42 | 59.22+3101 | 100 uF | -10% 10V | E1 | |
| C.....43 | 59.06+0153 | 1.5 nF | 10% 25V | PE | |
| C.....44 | 59.06+0103 | 10 nF | 10% 25V | PE | |
| C.....45 | 59.22+8479 | 10 uF | 20% 16V | Ta | |
| C.....46 | 59.30+4103 | 10 uF | 20% 16V | Ta | |
| C.....47 | 59.22+8479 | 4.7 uF | -10% 25V | E1 | |
| C.....48 | 59.06+0154 | 330 nF | 10% 25V | PE | |
| C.....49 | 59.06+0103 | 10 nF | 10% 25V | PE | |
| C.....50 | 59.22+8109 | 1 uF | -10% 25V | E1 | |
| C.....51 | 59.06+0334 | 330 nF | 10% 25V | PE | |
| C.....52 | 59.22+8109 | 1 uF | -10% 25V | E1 | |
| C.....53 | 59.30+4100 | 10 uF | -20% 25V | To | |
| C.....54 | 59.12+7392 | 5.6 nF | 2% 25V | PS | |
| C.....55 | 59.34+2393 | 39 pF | 10% 25V | Cer | |
| C.....56 | 59.06+0102 | 1 nF | 10% 25V | PE | |
| C.....57 | 59.22+8479 | 4.7 uF | -10% 25V | E1 | |
| C.....58 | 59.22+8479 | 4.7 uF | -10% 25V | E1 | |
| C.....59 | 59.06+0102 | 3.3 nF | 10% 25V | PE | |
| C.....60 | 59.06+0332 | 33 nF | 10% 25V | PE | |
| C.....61 | 59.06+0153 | 47 nF | 10% 25V | PE | |
| C.....62 | 59.06+0154 | 150 nF | 10% 25V | PE | |
| C.....63 | 59.06+0474 | 470 nF | 10% 25V | PE | |
| C.....64 | 59.11+6182 | 1.8 nF | 2.5% 25V | PC | |
| C.....65 | 59.22+6100 | 10 uF | -10% 25V | E1 | |

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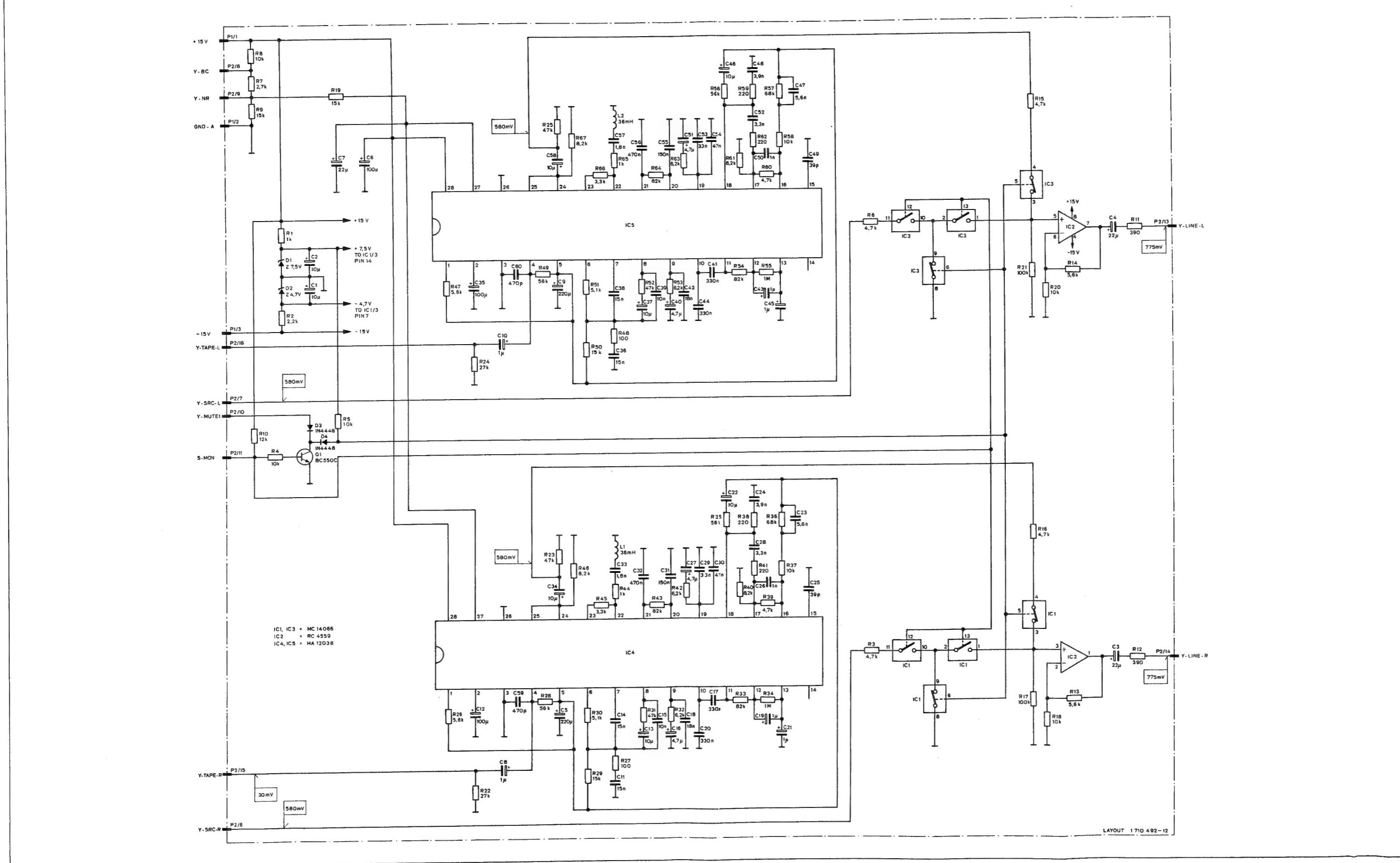
82/01/11 (01) 82/03/05

STUDER 82/05/26 RW DOLBY-C ENCODER

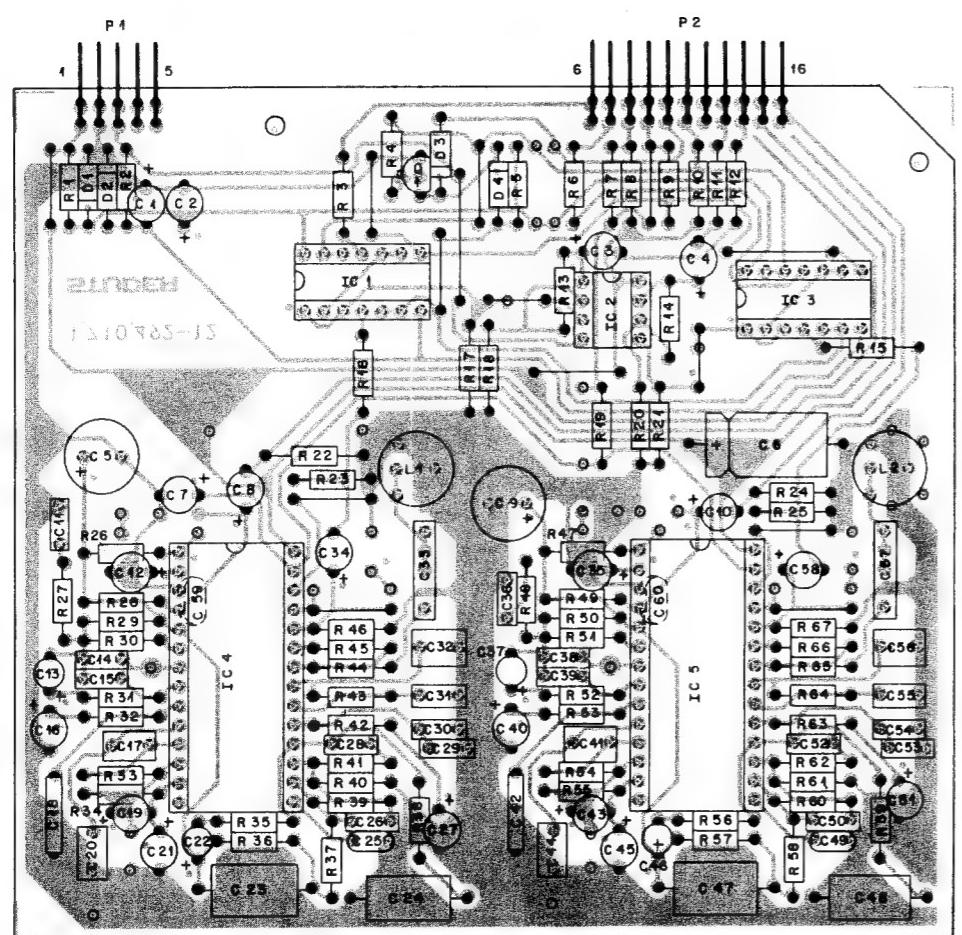
1.710.488.00 PAGE 5

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|------------|----------|-----------------------------|--------|
| L.....1 | 62.99+0108 | L 36MM | 5% | | |
| L.....2 | 62.99+0108 | L 23MM | Variable | | |
| L.....3 | 62.99+0108 | L 10MM | 5% | | |
| L.....4 | 62.99+0109 | L 23MM | Variable | | |
| L.....5 | 62.99+0108 | L 36MM</td | | | |

DOLBY-C DECODER PCB (WITH REPRO. AMP.) 1.710.492



DOLBY-C DECODER PCB (WITH REPRO. AMP.) 1.710.492



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|------------|--------|-----------------------------|--------|---------|------------|-----------|-------------|-----------------------------|--------|
| (01) | C****1 | 59.22.6100 | 10 uF | -10% 25V E1 | | R****33 | 57.11.4823 | 82 kOhm | 5% 0.25W CF | | |
| | C****2 | 59.22.6100 | 10 uF | -10% 25V E1 | | R****34 | 57.11.4105 | 1 MOhm | 5% 0.25W CF | | |
| | C****3 | 59.22.5220 | 22 uF | -10% 25V E1 | | R****35 | 57.11.4563 | 56 kOhm | 5% 0.25W CF | | |
| | C****4 | 59.22.5220 | 22 uF | -10% 25V E1 | | R****36 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| | C****5 | 59.22.3121 | 220 uF | -10% 10V E1 | | R****37 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| | C****6 | 59.25.3101 | 100 uF | -20% 16V E1 | | R****38 | 57.11.4221 | 220 Ohm | 5% 0.25W CF | | |
| | C****7 | 59.22.5220 | 22 uF | -10% 25V E1 | | R****39 | 57.11.4472 | 4.7 kOhm | 5% 0.25W CF | | |
| | C****8 | 59.22.8109 | 1 uF | -10% 25V E1 | | R****40 | 57.11.4822 | 8.2 kOhm | 5% 0.25W CF | | |
| | C****9 | 59.22.3121 | 220 uF | -10% 10V E1 | | R****41 | 57.11.4103 | 220 Ohm | 5% 0.25W CF | | |
| | C****10 | 59.22.8109 | 1 uF | -10% 25V E1 | | R****42 | 57.11.4622 | 6.2 kOhm | 5% 0.25W CF | | |
| | C****11 | 59.06.0153 | 15 nF | 10% 25V PE | | R****43 | 57.11.4823 | 82 kOhm | 5% 0.25W CF | | |
| | C****12 | 59.22.3101 | 100 uF | -10% 10V E1 | | R****44 | 57.11.3102 | 1 kOhm | 1% 0.25W CF | | |
| | C****13 | 59.30.4101 | 15 uF | 20% 16V Ta | | R****45 | 57.11.3332 | 3.3 kOhm | 1% 0.25W CF | | |
| | C****14 | 59.06.0153 | 15 nF | 10% 25V PE | | R****46 | 57.11.4222 | 82 kOhm | 5% 0.25W CF | | |
| | C****15 | 59.30.4101 | 15 uF | 10% 25V PE | | R****47 | 57.11.4562 | 14.6 kOhm | 5% 0.25W CF | | |
| | C****16 | 59.22.8479 | 4.7 uF | -10% 25V E1 | | R****48 | 57.11.4101 | 100 Ohm | 5% 0.25W CF | | |
| | C****17 | 59.06.0334 | 330 nF | 10% 25V PE | | R****49 | 57.11.4563 | 56 kOhm | 5% 0.25W CF | | |
| | C****18 | 59.12.4181 | 11 nF | 5% 25V PC | | R****50 | 57.11.4153 | 1.5 kOhm | 5% 0.25W CF | | |
| | C****19 | 59.22.8109 | 1 uF | -10% 25V E1 | | R****51 | 57.11.4512 | 5.1 kOhm | 5% 0.25W CF | | |
| | C****20 | 59.06.0334 | 330 nF | 10% 25V PE | | R****52 | 57.11.4473 | 220 Ohm | 5% 0.25W CF | | |
| | C****21 | 59.22.8109 | 1 uF | -10% 25V E1 | | R****53 | 57.11.4622 | 6.2 kOhm | 5% 0.25W CF | | |
| | C****22 | 59.30.4101 | 10 uF | -20% 16V Ta | | R****54 | 57.11.4823 | 82 kOhm | 5% 0.25W CF | | |
| | C****23 | 59.12.7562 | 5.6 nF | 5% 25V PS | | R****55 | 57.11.4105 | 1 MOhm | 5% 0.25W CF | | |
| | C****24 | 59.12.7392 | 3.9 nF | 2% 25V PS | | R****56 | 57.11.4563 | 56 kOhm | 5% 0.25W CF | | |
| | C****25 | 59.34.0390 | 39 pF | 10% 25V Cer | | R****57 | 57.11.4103 | 88 Ohm | 5% 0.25W CF | | |
| | C****26 | 59.22.8479 | 1 uF | 10% 25V PE | | R****58 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | | |
| | C****27 | 59.22.8679 | 6.7 uF | 10% 25V E1 | | R****59 | 57.11.4221 | 220 Ohm | 5% 0.25W CF | | |
| | C****28 | 59.05.1332 | 3.3 nF | 2% 25V PE | | R****60 | 57.11.4472 | 4.7 kOhm | 5% 0.25W CF | | |
| | C****29 | 59.06.0333 | 33 nF | 10% 25V PE | | R****61 | 57.11.4822 | 8.2 kOhm | 5% 0.25W CF | | |
| | C****30 | 59.06.0333 | 47 nF | 10% 25V PE | | R****62 | 57.11.4103 | 220 Ohm | 5% 0.25W CF | | |
| | C****31 | 59.06.0154 | 15 nF | 10% 25V PE | | R****63 | 57.11.4622 | 6.2 kOhm | 5% 0.25W CF | | |
| | C****32 | 59.06.0474 | 470 nF | 10% 25V PE | | R****64 | 57.11.4823 | 82 kOhm | 5% 0.25W CF | | |
| | C****33 | 59.11.6102 | 1.8 nF | 2.5% 25V PC | | R****65 | 57.11.3102 | 1 kOhm | 1% 0.25W CF | | |
| | C****34 | 59.22.6101 | 10 uF | -10% 25V E1 | | R****66 | 57.11.3332 | 3.3 kOhm | 1% 0.25W CF | | |
| | C****35 | 59.22.3101 | 100 uF | -10% 10V E1 | | R****67 | 57.11.4622 | 8.2 kOhm | 5% 0.25W CF | | |
| | C****36 | 59.22.8109 | 15 nF | 10% 25V PE | | | | | | | |
| | C****37 | 59.30.4101 | 10 uF | 20% 16V Ta | | | | | | | |

STUDER 82/05/26 RW DOLBY-C DECODER 1.710.492.00 PAGE 1

STUDER 82/05/26 RW DOLBY-C DECODER 1.710.492.00 PAGE 4

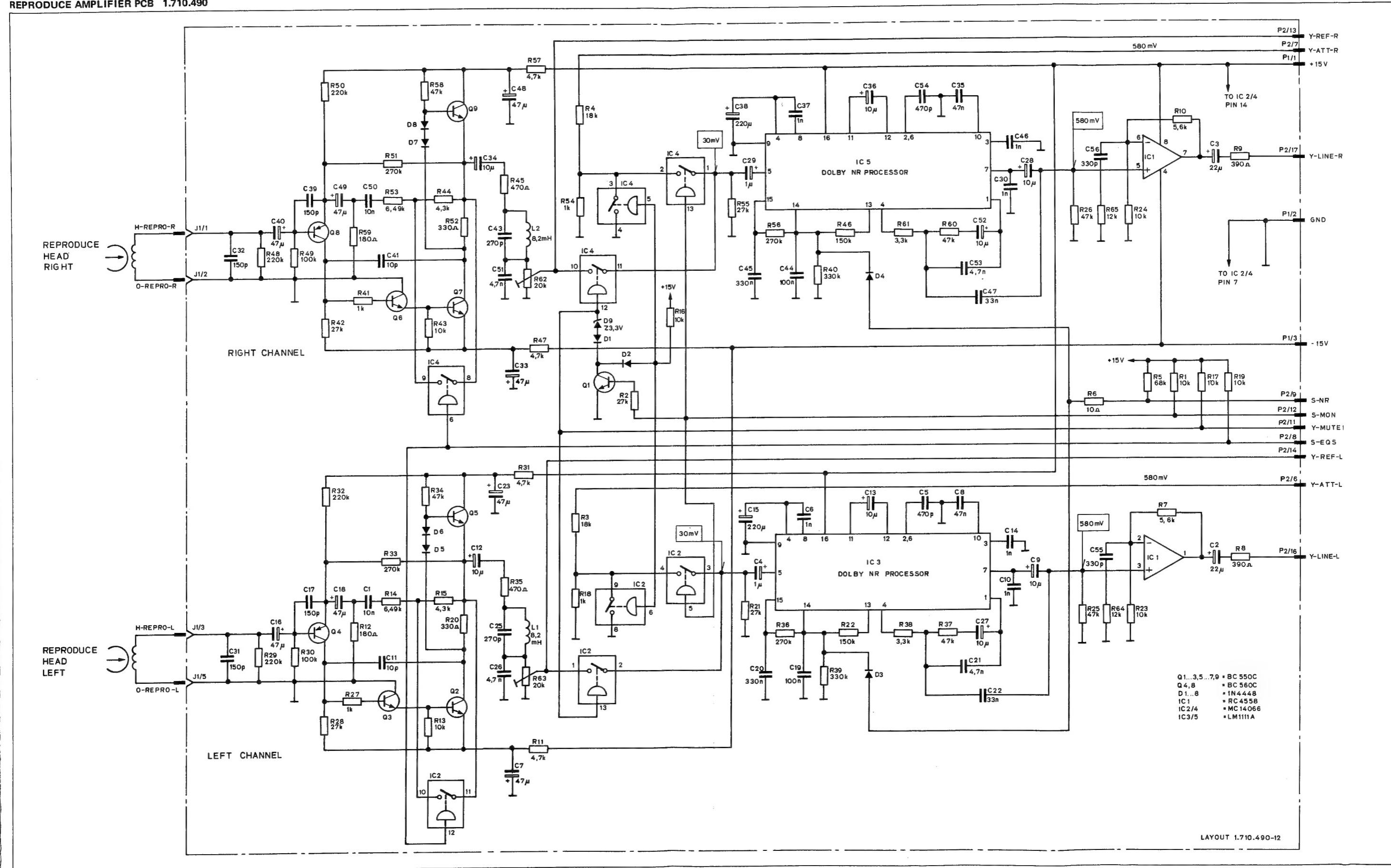
| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|------------|--------|-----------------------------|--------|
| (01) | C****38 | 59.06.0153 | 15 nF | 10% 25V PE | |
| | C****39 | 59.06.0103 | 10 nF | 10% 25V PE | |
| | C****40 | 59.22.8479 | 4.7 uF | -10% 25V E1 | |
| | C****41 | 59.06.0334 | 330 nF | 10% 25V PE | |
| | C****42 | 59.12.7392 | 3.9 nF | 2% 25V PS | |
| | C****43 | 59.22.8109 | 1 uF | -10% 25V E1 | |
| | C****44 | 59.06.0334 | 330 nF | 10% 25V PE | |
| | C****45 | 59.22.8109 | 1 uF | -10% 25V E1 | |
| | C****46 | 59.30.4100 | 10 uF | -20% 25V Ta | |
| | C****47 | 59.12.7392 | 3.9 nF | 2% 25V PS | |
| | C****48 | 59.12.7392 | 3.9 nF | 10% 25V PS | |
| | C****49 | 59.34.2390 | 39 pF | 10% 25V Cer | |
| | C****50 | 59.06.0102 | 1 nF | 10% 25V PE | |
| | C****51 | 59.22.8479 | 4.7 uF | 10% 25V E1 | |
| | C****52 | 59.05.1332 | 33 nF | 2% 25V PE | |
| | C****53 | 59.06.0153 | 33 nF | 10% 25V PE | |
| | C****54 | 59.06.0473 | 47 nF | 10% 25V PE | |
| | C****55 | 59.06.0154 | 150 nF | 10% 25V PE | |
| | C****56 | 59.06.0474 | 470 nF | 10% 25V PE | |
| | C****57 | 59.11.6182 | 14 nF | 2.5% 25V PC | |
| | C****58 | 59.22.8479 | 10 nF | -10% 25V E1 | |
| | C****59 | 59.32.4471 | 470 pF | 20% 25V Cer | |
| | C****60 | 59.32.4471 | 470 pF | 20% 25V Cer | |

STUDER 82/05/26 RW DOLBY-C DECODER 1.710.492.00 PAGE 2

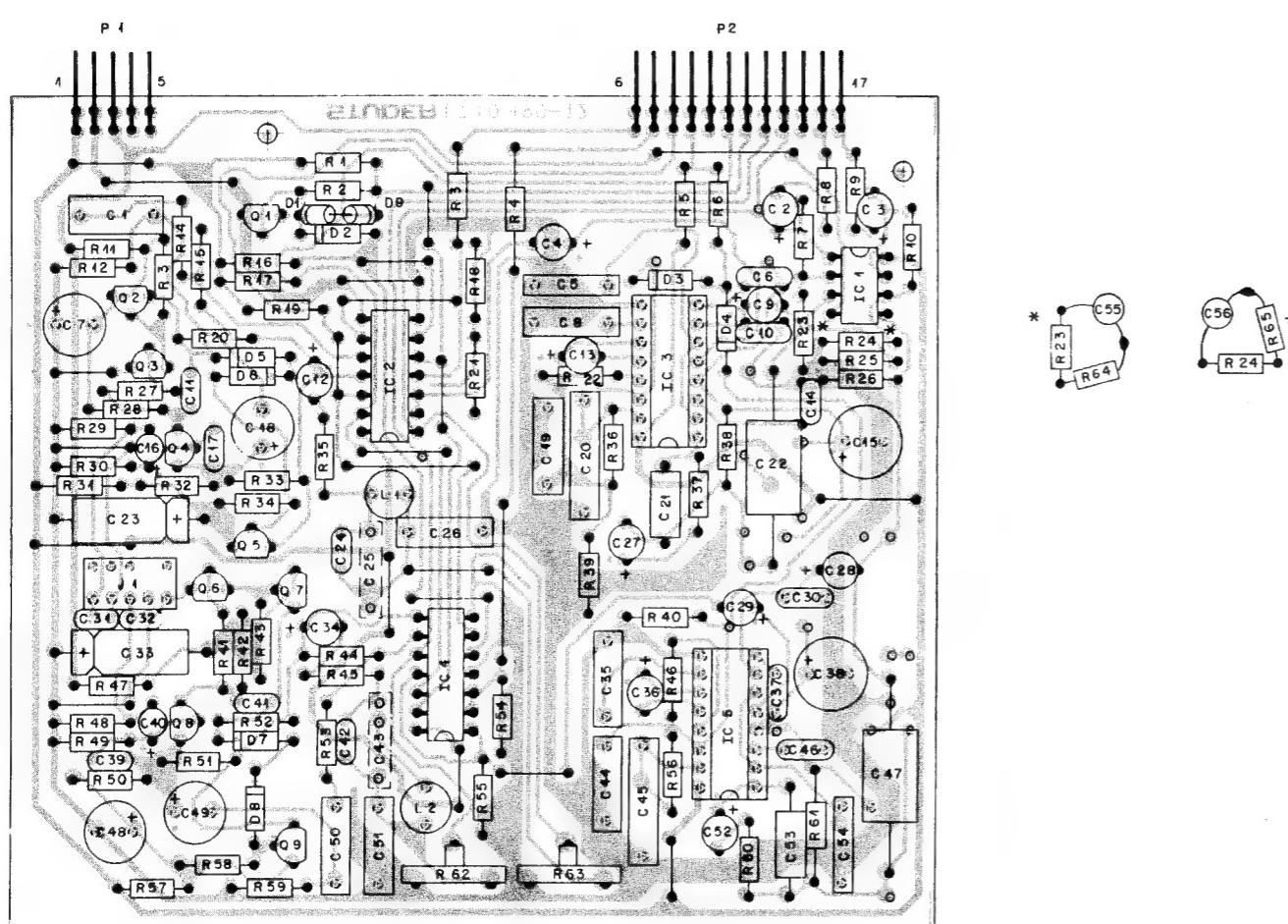
STUDER 82/05/26 RW DOLBY-C DECODER 1.710.492.00 PAGE 5

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|------|---------|------------|----------|-----------------------------|--------|
| (01) | P****1 | 54.01.0269 | 5-Pole | Pin-Strip | |
| | P****2 | 54.01.0272 | 11-Pole | Pin-Strip | |
| | Q****1 | 50.03.0497 | BC 550 C | | Si |
| | R****1 | 57.11.4102 | 1 kOhm | 5% 0.25W CF | |
| | R****2 | 57.11.4222 | 2.2 kOhm | 5% 0.25W CF | |
| | R****3 | 57.11.4472 | 4.7 kOhm | 5% 0.25W CF | |
| | R****4 | 57.11.4473 | 10 kOhm | 5% 0.25W CF | |
| | R****5 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| | R****6 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| | R****7 | 57.11.4272 | 2.7 kOhm | 5% 0.25W CF | |
| | R****8 | 57.11.4103 | 10 kOhm | 5% 0.25W CF | |
| | R****9 | 57.11.4153 | 15 kOhm | 5% 0.25W CF | |
| | R****10 | 57.11.4333 | 12 kOhm | 5% 0.25W CF | |
| | R****11 | 57.11.4391 | 390 Ohm | 5 | |

REPRODUCE AMPLIFIER PCB 1.710.490



REPRODUCE AMPLIFIER PCB 1.710.490



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|---------|------------|--------|-----------------------------|--------|---------|------------|-----------|-------|-----------------------------|--------|
| C****1 | | 59.11+4103 | 10 nF | 2-5%, 25V | PC | R****22 | 57.11+4154 | 150 kOhm | 5% | 0-25W | CF |
| C****2 | | 59.22+5220 | 22 uF | -10%, 25V | E1 | R****23 | 57.11+4103 | 10 kOhm | 5% | 0-25W | CF |
| C****3 | | 59.22+5220 | 22 uF | -10%, 25V | E1 | R****24 | 57.11+4103 | 10 kOhm | 5% | 0-25W | CF |
| C****4 | | 59.22+8109 | 1 uF | -10%, 25V | E1 | R****25 | 57.11+4473 | 47 kOhm | 5% | 0-25W | CF |
| C****5 | | 59.11+3221 | 470 pF | 5%, 25V | PC | R****26 | 57.11+4473 | 47 kOhm | 5% | 0-25W | CF |
| C****6 | | 59.32+1102 | 1 nF | -10%, 25V | Cer | R****27 | 57.11+4224 | 100 kOhm | 5% | 0-25W | CF |
| C****7 | | 59.22+5470 | 47 uF | -10%, 25V | E1 | R****28 | 57.11+4273 | 27 kOhm | 5% | 0-25W | CF |
| C****8 | | 59.12+4473 | 47 nF | 5%, 25V | PE | R****29 | 57.11+4224 | 220 kOhm | 5% | 0-25W | CF |
| C****9 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****30 | 57.11+4104 | 100 kOhm | 5% | 0-25W | CF |
| C****10 | | 59.32+1102 | 1 nF | 10%, 25V | Cer | R****31 | 57.11+4472 | 4.7 kOhm | 5% | 0-25W | CF |
| C****11 | | 59.32+0100 | 10 pF | 20%, 25V | Cer | R****32 | 57.11+4224 | 220 kOhm | 5% | 0-25W | CF |
| C****12 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****33 | 57.11+4274 | 270 kOhm | 5% | 0-25W | CF |
| C****13 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****34 | 57.11+4224 | 100 kOhm | 5% | 0-25W | CF |
| C****14 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****35 | 57.11+4471 | 470 Ohm | 5% | 0-25W | CF |
| C****15 | | 59.22+3221 | 220 uF | -10%, 10V | E1 | R****36 | 57.11+4274 | 270 kOhm | 5% | 0-25W | CF |
| C****16 | | 59.30+1470 | 47 uF | -20%, 3V | Ta | R****37 | 57.11+4473 | 47 kOhm | 5% | 0-25W | CF |
| C****17 | | 59.32+1151 | 150 pF | 20%, 25V | Cer | R****38 | 57.11+3332 | 3.3 kOhm | 1% | 0-25W | MF |
| C****18 | | 59.22+6100 | 47 uF | -10%, 25V | E1 | R****39 | 57.11+4334 | 330 kOhm | 5% | 0-25W | CF |
| C****19 | | 59.22+6104 | 100 pF | 10%, 25V | E1 | R****40 | 57.11+4334 | 330 kOhm | 5% | 0-25W | CF |
| C****20 | | 59.31+6334 | 330 nF | 10%, 25V | PE | R****41 | 57.11+4292 | 1 kOhm | 5% | 0-25W | CF |
| C****21 | | 59.12+7472 | 4.7 nF | 1%, 25V | PS | R****42 | 57.11+4273 | 27 kOhm | 5% | 0-25W | CF |
| C****22 | | 59.12+7333 | 33 nF | 1%, 25V | PS | R****43 | 57.11+4103 | 10 kOhm | 5% | 0-25W | CF |
| C****23 | | 59.25+3470 | 47 uF | -10%, 16V | E1 | R****44 | 57.11+4432 | 4.3 kOhm | 2% | 0-25W | CF |
| C****24 | | 59.24+4771 | 270 pF | 5%, 25V | Cer | R****45 | 57.11+4471 | 470 Ohm | 5% | 0-25W | CF |
| C****25 | | 59.11+4472 | 4.7 uF | 2-5%, 25V | PC | R****46 | 57.11+4154 | 150 kOhm | 5% | 0-25W | CF |
| C****26 | | 59.11+4472 | 4.7 uF | 2-5%, 25V | PC | R****47 | 57.11+4472 | 47 kOhm | 5% | 0-25W | CF |
| C****27 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****48 | 57.11+4224 | 220 kOhm | 5% | 0-25W | CF |
| C****28 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****49 | 57.11+4104 | 100 kOhm | 5% | 0-25W | CF |
| C****29 | | 59.22+8109 | 1 uF | -10%, 25V | E1 | R****50 | 57.11+4224 | 220 kOhm | 5% | 0-25W | CF |
| C****30 | | 59.32+1102 | 1 nF | 20%, 25V | Cer | R****51 | 57.11+4274 | 270 kOhm | 5% | 0-25W | CF |
| C****31 | | 59.34+3221 | 150 pF | 2%, 25V | Cer | R****52 | 57.11+4331 | 330 Ohm | 5% | 0-25W | CF |
| C****32 | | 59.22+2151 | 150 pF | 2%, 25V | PS | R****53 | 57.39+6491 | 6.49 kOhm | 1% | 0-25W | MF |
| C****33 | | 59.25+3470 | 47 uF | -10%, 16V | E1 | R****54 | 57.11+4273 | 27 kOhm | 5% | 0-25W | CF |
| C****34 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****55 | 57.11+4273 | 27 kOhm | 5% | 0-25W | CF |
| C****35 | | 59.12+4473 | 47 nF | 5%, 25V | PE | R****56 | 57.11+4274 | 270 kOhm | 5% | 0-25W | CF |
| C****36 | | 59.22+6100 | 10 uF | -10%, 25V | E1 | R****57 | 57.11+4472 | 4.7 kOhm | 5% | 0-25W | CF |

STUDER 83/01/18 RW REPRODUCE AMPLIFIER

1-710-490-00 PAGE 1 STU DIER 03/01/18 RW REPRODUCE AMPLIFIER 1-710-490-00 PAGE 4

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | | MANUF. | IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | | MANUF. |
|---------|---------|------------|--------|-----------------------------|-----|--------|--------------|---------|------------|-----------|-----------------------------|----------|--------|
| C****38 | | 59.32-3221 | 220 pF | -10% | 10V | E1 | R****59 | | 57.11+4181 | 180 Ohm | 5%, 0.25W | CF | |
| C****39 | | 59.32-1151 | 150 pF | 20% | 25V | Cer | R****60 | | 57.11+4473 | 47 MΩ | 5%, 0.25W | CF | |
| C****40 | | 59.30-1470 | 47 uF | -20% | 3V | fa | R****61 | | 57.11+4472 | 31000 Ohm | 1%, 0.25W | CF | |
| C****41 | | 59.32+0100 | 10 pF | 20% | 25V | Cer | R****62 | | 58.19+0203 | 20 kΩ | 20%, 0.15W | POT | |
| C****42 | | | | | | | R****63 | | 58.19+0203 | 20 kΩ | 20%, 0.15W | POT, LIN | |
| C****43 | | 59.34+0271 | 270 pF | 5% | 25V | Cer | (02) R****64 | | 57.11+4123 | 12 kΩ | 5%, 0.15W | CF | |
| C****44 | | 59.31-6104 | 100 nF | 10% | 25V | PE | (02) R****65 | | 57.11+4123 | 12 kΩ | 5%, 0.15W | POT, LIN | |
| C****45 | | 59.31-6334 | 330 nF | 10% | 25V | PE | | | | | | | |
| C****46 | | 59.32-1102 | 1 nF | 20% | 25V | Cer | | | | | | | |
| C****47 | | 59.32-1473 | 33 nF | 1% | 25V | PS | | | | | | | |
| C****48 | | 59.22-5470 | 47 uF | -10% | 25V | | | | | | | | |
| C****49 | | 59.22-5470 | 47 uF | -10% | 25V | E1 | | | | | | | |
| C****50 | | 59.11+4103 | 10 nF | 2.5% | 25V | PC | | | | | | | |
| C****51 | | 59.11+4172 | 4.7 nF | 2.5% | 25V | PC | | | | | | | |
| C****52 | | 59.22-6100 | 10 uF | -10% | 25V | E1 | | | | | | | |
| C****53 | | 59.12-7472 | 4.7 nF | 1% | 25V | PS | | | | | | | |
| C****54 | | 59.11+6471 | 470 pF | 5% | 25V | PC | | | | | | | |
| C****55 | | 59.34+4331 | 330 pF | 10% | 25V | Cer | | | | | | | |
| C****56 | | 59.34+4331 | 330 pF | 10% | 25V | Cer | | | | | | | |
| (02) | D****1 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****2 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****3 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****4 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****5 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****6 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****7 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |
| | D****8 | 50.04+0125 | 1N4448 | | SI | any | | | | | | | |

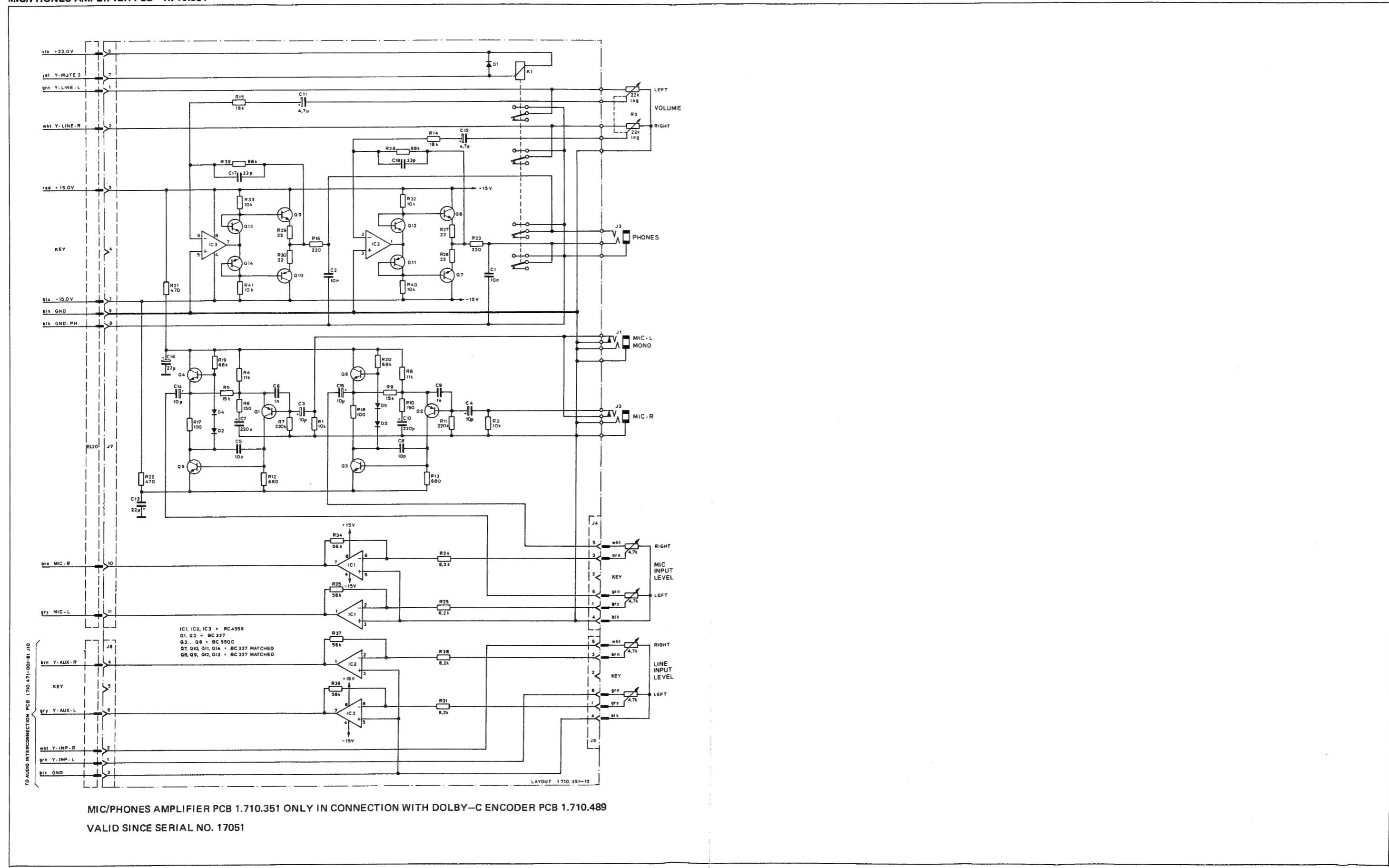
D.....9 50.04.1107 Z 3.3V 5%, 400m

| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|-----------|------------|-----------|---------------|-----------------------------|--------|
| L.....+1 | 62.02+1822 | L 8.2mH | 5% | | |
| L.....+2 | 62.02+1822 | L 8.2mH | 5% | | |
| P.....+1 | 54.01-0269 | 5-Pole | Pin-Strip | AMP | |
| P.....+2 | 54.01-0221 | 12-Pole | Pin-Strip | AMP | |
| Q.....+1 | 50.03+0497 | BC 550 C | NPN | | |
| Q.....+2 | 50.03+0497 | BC 550 C | NPN | | |
| Q.....+3 | 50.03+0496 | BC 560 C | NPN | | |
| Q.....+4 | 50.03+0496 | BC 560 C | NPN | | |
| Q.....+5 | 50.03+0497 | BC 550 C | NPN | | |
| Q.....+6 | 50.03+0497 | BC 550 C | NPN | | |
| Q.....+7 | 50.03+0497 | BC 550 C | NPN | | |
| Q.....+8 | 50.03+0496 | BC 560 C | PNP | | |
| Q.....+9 | 50.03+0497 | BC 550 C | NPN | | |
| R.....+1 | 57.11+1103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....+2 | 57.11+1273 | 27 kOhm | 5%, 0.25W, CF | | |
| R.....+3 | 57.11+1183 | 18 kOhm | 5%, 0.25W, CF | | |
| R.....+4 | 57.11+1183 | 18 kOhm | 5%, 0.25W, CF | | |
| R.....+5 | 57.11+4683 | 1M kOhm | 5%, 0.25W, CF | | |
| R.....+6 | 57.11+1103 | 10 Ohm | 5%, 0.25W, CF | | |
| R.....+7 | 57.11+4562 | 5.6 kOhm | 5%, 0.25W, CF | | |
| R.....+8 | 57.11+3971 | 390 kOhm | 5%, 0.25W, CF | | |
| R.....+9 | 57.11+1101 | 3.0 kOhm | 5%, 0.25W, CF | | |
| R.....+10 | 57.11+1103 | 5.6 kOhm | 5%, 0.25W, CF | | |
| R.....+11 | 57.11+4672 | 4.7 kOhm | 5%, 0.25W, CF | | |
| R.....+12 | 57.11+1181 | 180 Ohm | 5%, 0.25W, CF | | |
| R.....+13 | 57.11+1103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....+14 | 57.39+6591 | 6.49 kOhm | 5%, 0.25W, MF | | |
| R.....+15 | 57.11+1102 | 4.3 kOhm | 2%, 0.25W, CF | | |
| R.....+16 | 57.11+1103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....+17 | 57.11+1103 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....+18 | 57.11+1102 | 1 kOhm | 5%, 0.25W, CF | | |
| R.....+19 | 57.11+1102 | 10 kOhm | 5%, 0.25W, CF | | |
| R.....+20 | 57.11+4331 | 330 Ohm | 5%, 0.25W, CF | | |
| R.....+21 | 57.11+4273 | 27 kOhm | 5%, 0.25W, CF | | |

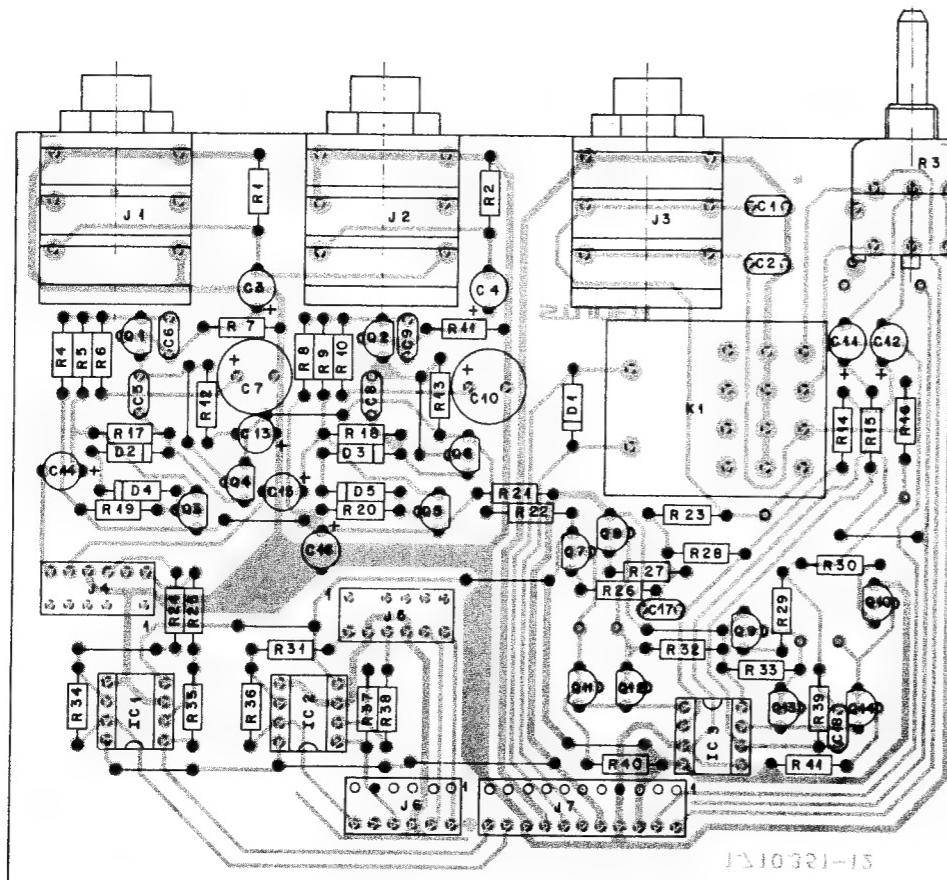
STUDER 83/01/18 RW REPRODUCE AMPLIFIER

1.710.490.00 PAGE 3

MIC/PHONES AMPLIFIER PCB 1.710.351



MIC/PHONES AMPLIFIER PCB 1.710.351



| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|---------|--------------|---------|-----------------------------|--------|
| C.....1 | | 59.32.3103 | 10 nF | 20%, Cer | |
| C.....2 | | 59.32.3103 | 10 nF | 20%, Cer | |
| C.....3 | | 59.22.6100 | 10 uF | -10%, E1 | |
| C.....4 | | 59.22.6100 | 10 uF | -10%, E1 | |
| C.....5 | | 59.32.0100 | 10 pF | 20%, Cer | |
| C.....6 | | 59.32.4102 | 1 nF | 20%, Cer | |
| C.....7 | | 59.22.6121 | 220 uF | -10%, E1 | |
| C.....8 | | 59.32.0100 | 10 nF | 20%, Cer | |
| C.....9 | | 59.32.4102 | 1 nF | 20%, Cer | |
| C.....10 | | 59.22.2221 | 220 uF | -10%, E1 | |
| C.....11 | | 59.22.8479 | 4.7 uF | -20%, E1 | |
| C.....12 | | 59.22.8479 | 4.7 uF | -20%, E1 | |
| C.....13 | | 59.22.5220 | 22 uF | -10%, E1 | |
| C.....14 | | 59.22.6100 | 10 uF | -10%, E1 | |
| C.....15 | | 59.22.6100 | 10 uF | -10%, E1 | |
| C.....16 | | 59.22.5220 | 22 uF | -10%, E1 | |
| C.....17 | | 59.32.1330 | 33 pF | 20%, Cer | |
| C.....18 | | 59.32.1330 | 33 pF | 20%, Cer | |
| D.....1 | | 50.04.0125 | 1N4448 | Si | |
| D.....2 | | 50.04.0125 | 1N4448 | Si | |
| D.....3 | | 50.04.0125 | 1N4448 | Si | |
| D.....4 | | 50.04.0125 | 1N4448 | Si | |
| D.....5 | | 50.04.0125 | 1N4448 | Si | |
| IC....1 | | 50.09.0107 | RC 4559 | Dual Op. Amp. | Ti+RA |
| IC....2 | | 50.09.0107 | RC 4559 | Dual Op. Amp. | Ti+RA |
| IC....3 | | 50.09.0107 | RC 4559 | Dual Op. Amp. | Ti+RA |
| J.....1 | | 1.710.350.02 | | Jack-Socket | St |
| J.....2 | | 1.710.350.02 | | Jack-Socket | St |
| J.....3 | | 1.710.350.02 | | Jack-Socket | St |
| J.....4 | | 54.01.0238 | 6-Pole | CIS-Socket-Strip | AHP |
| J.....5 | | 54.01.0238 | 6-Pole | CIS-Socket-Strip | AHP |
| J.....6 | | 54.01.0216 | 6-Pole | CIS-Socket-Strip | AHP |
| J.....7 | | 54.01.0291 | 11-Pole | CIS-Socket-Strip | AHP |

STUDER 82/07/05 RM MIC. PHONES AMPL. 1.710.351.00 PAGE 1

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|---------|--------------|----------|-----------------------------|--------|
| K.....1 | | 56.04.0121 | PZ 4 | 24V, 4W | |
| Q.....1 | | 50.03.0625 | BC 327 | PNP | |
| Q.....2 | | 50.03.0625 | BC 327 | PNP | |
| Q.....3 | | 50.03.0497 | BC 550 C | NPN | |
| Q.....4 | | 50.03.0497 | BC 550 C | NPN | |
| Q.....5 | | 50.03.0497 | BC 550 C | NPN | |
| Q.....6 | | 50.03.0497 | BC 550 C | NPN | |
| Q.....7 | | 50.03.0625 | BC 327 | PNP matched with Q11 | Sie |
| Q.....8 | | 50.03.0516 | BC 337 | NPN matched with Q12 | Sie |
| Q.....9 | | 50.03.0625 | BC 337 | NPN matched with Q13 | Sie |
| Q.....10 | | 50.03.0625 | BC 337 | NPN matched with Q14 | Sie |
| Q.....11 | | 50.03.0625 | BC 327 | NPN matched with Q15 | Sie |
| Q.....12 | | 50.03.0516 | BC 337 | NPN matched with Q 8 | Sie |
| Q.....13 | | 50.03.0516 | BC 337 | NPN matched with Q 9 | Sie |
| Q.....14 | | 50.03.0625 | BC 327 | NPN matched with Q10 | Sie |
| R.....1 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....2 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....3 | | 1.710.350.01 | 22 kOhm | 20%, 0.15W, PCF, +lag | St |
| R.....4 | | 57.11.4113 | 11 kOhm | 5%, 0.25W, CF | |
| R.....5 | | 57.11.4113 | 15 kOhm | 5%, 0.25W, CF | |
| R.....6 | | 57.11.4151 | 150 kOhm | 5%, 0.25W, CF | |
| R.....7 | | 57.11.4224 | 220 kOhm | 5%, 0.25W, CF | |
| R.....8 | | 57.11.4113 | 11 kOhm | 5%, 0.25W, CF | |
| R.....9 | | 57.11.4153 | 15 kOhm | 5%, 0.25W, CF | |
| R.....10 | | 57.11.4153 | 15 kOhm | 5%, 0.25W, CF | |
| R.....11 | | 57.11.4224 | 220 kOhm | 5%, 0.25W, CF | |
| R.....12 | | 57.11.4681 | 680 Ohm | 5%, 0.25W, CF | |
| R.....13 | | 57.11.4681 | 680 Ohm | 5%, 0.25W, CF | |
| R.....14 | | 57.11.4183 | 18 kOhm | 5%, 0.25W, CF | |
| R.....15 | | 57.11.4183 | 18 kOhm | 5%, 0.25W, CF | |
| R.....16 | | 57.11.4221 | 220 Ohm | 5%, 0.25W, CF | |
| R.....17 | | 57.11.4101 | 100 Ohm | 5%, 0.25W, CF | |
| R.....18 | | 57.11.4101 | 100 Ohm | 5%, 0.25W, CF | |
| R.....19 | | 57.11.4683 | 68 kOhm | 5%, 0.25W, CF | |
| R.....20 | | 57.11.4683 | 68 kOhm | 5%, 0.25W, CF | |

STUDER 82/07/05 RM MIC. PHONES AMPL. 1.710.351.00 PAGE 2

| IND. | POS.NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|----------|---------|------------|----------|-----------------------------|--------|
| R.....21 | | 57.12.4471 | 470 Ohm | 5%, 0.33W, CF | |
| R.....22 | | 57.12.4471 | 470 Ohm | 5%, 0.33W, CF | |
| R.....23 | | 57.11.4221 | 220 Ohm | 5%, 0.25W, CF | |
| R.....24 | | 57.11.4221 | 6.2 kOhm | 5%, 0.25W, CF | |
| R.....25 | | 57.11.4622 | 6.2 kOhm | 5%, 0.25W, CF | |
| R.....26 | | 57.11.4220 | 22 Ohm | 5%, 0.25W, CF | |
| R.....27 | | 57.11.4220 | 22 Ohm | 5%, 0.25W, CF | |
| R.....28 | | 57.11.4683 | 68 kOhm | 5%, 0.25W, CF | |
| R.....29 | | 57.11.4683 | 68 kOhm | 5%, 0.25W, CF | |
| R.....30 | | 57.11.4220 | 22 Ohm | 5%, 0.25W, CF | |
| R.....31 | | 57.11.4622 | 6.2 kOhm | 5%, 0.25W, CF | |
| R.....32 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....33 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....34 | | 57.11.4563 | 56 kOhm | 5%, 0.25W, CF | |
| R.....35 | | 57.11.4563 | 56 kOhm | 5%, 0.25W, CF | |
| R.....36 | | 57.11.4563 | 56 kOhm | 5%, 0.25W, CF | |
| R.....37 | | 57.11.4563 | 56 kOhm | 5%, 0.25W, CF | |
| R.....38 | | 57.11.4622 | 6.2 kOhm | 5%, 0.25W, CF | |
| R.....39 | | 57.11.4683 | 68 kOhm | 5%, 0.25W, CF | |
| R.....40 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....41 | | 57.11.4103 | 10 kOhm | 5%, 0.25W, CF | |

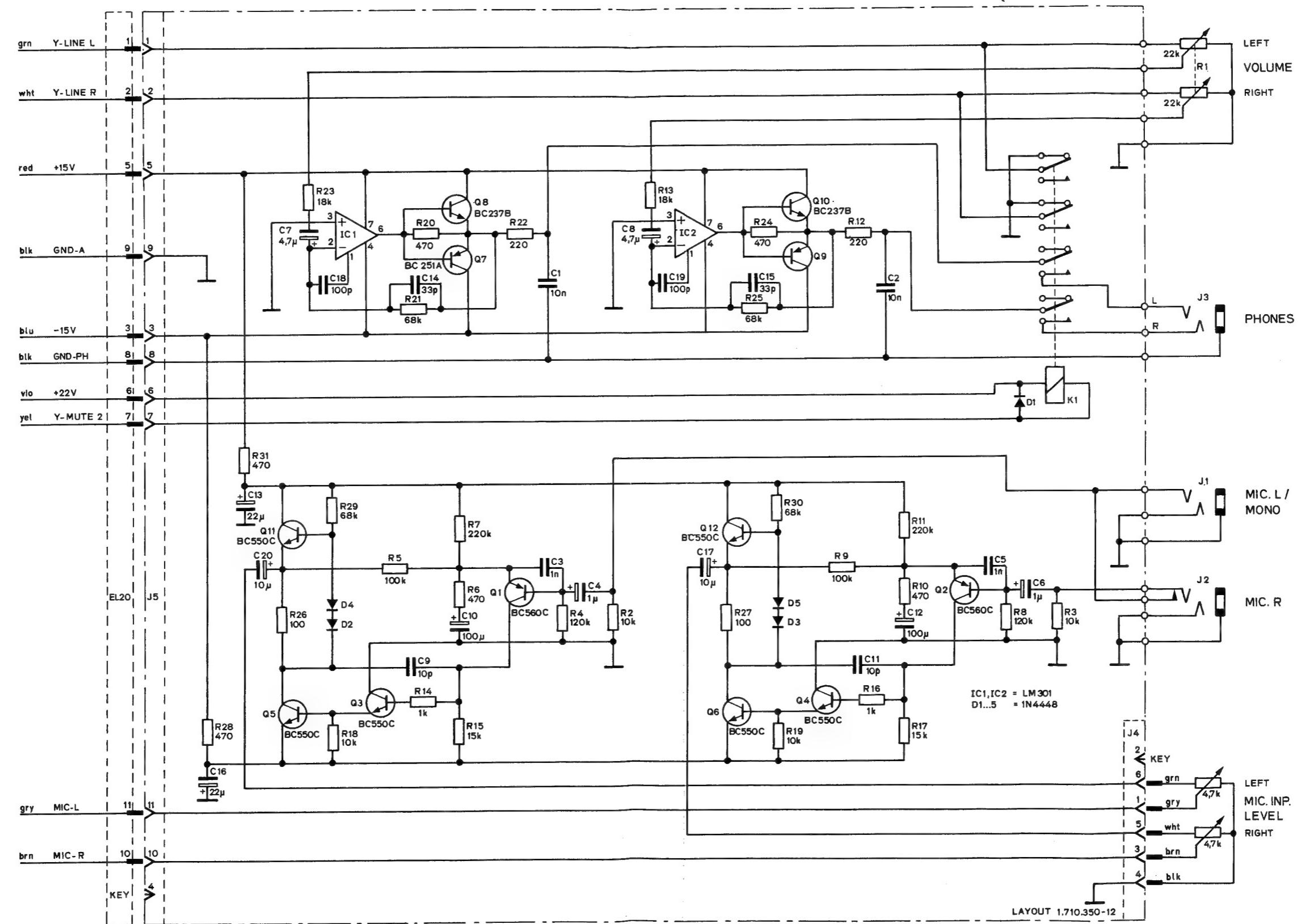
Cer=CERAMIC, El=ELECTROLYTIC,
CF=CARBON FILM
MANUFACTURER: Ti= TEXAS INSTRUMENT St=STUDER, Sie=Siemens.

CRIG 82/06/21

STUDER 82/07/05 RM MIC. PHONES AMPL.

1.710.351.00 PAGE 3

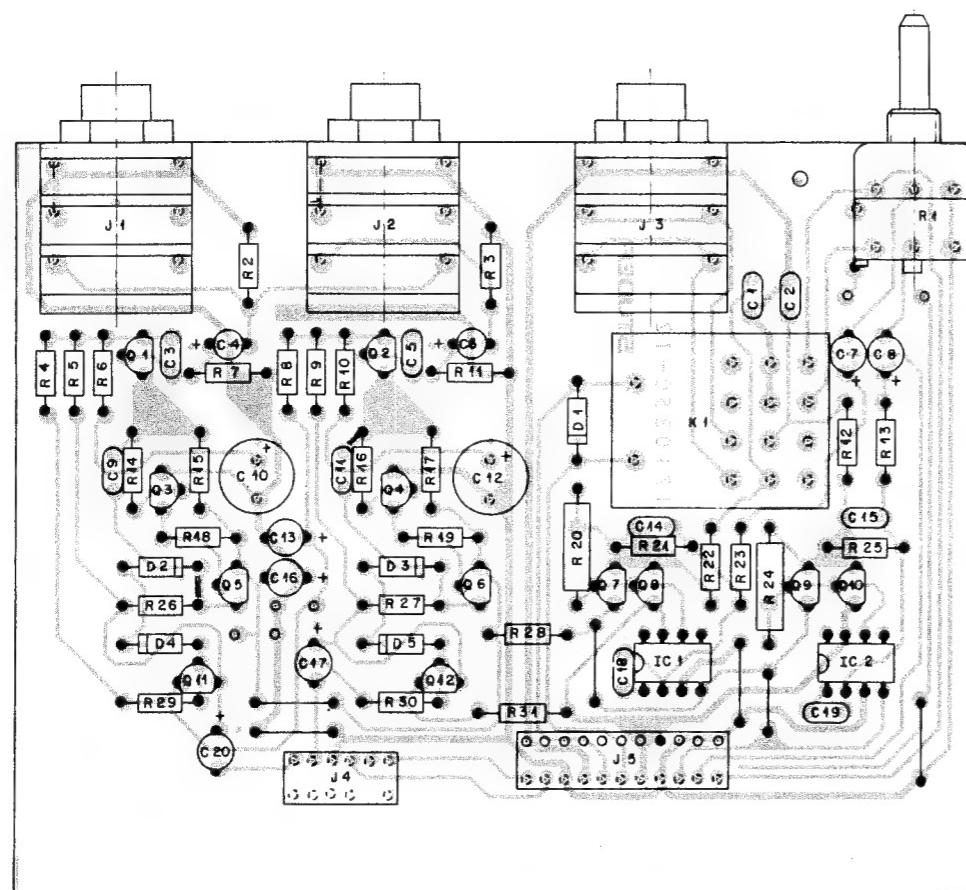
MIC/PHONES AMPLIFIER PCB 1.710.350



MIC/PHONES AMPLIFIER PCB 1.710.350 IN CONNECTION WITH DOLBY-C ENCODER PCB 1.710.488 (B710 MKII)
OR RECORD EQUALIZER PCB 1.710.485 (B710 MKI)

VALID TILL SERIAL NO. 17050 (B710 MKII)

MIC/PHONES AMPLIFIER PCB 1.710.350



| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|----------|----------|--------------|---------|-----------------------------|--------|
| C.....1 | | 59.32+3103 | 10 nF | 20%, Cer | |
| C.....2 | | 59.32+3103 | 10 nF | 20%, Cer | |
| C.....3 | | 59.32+3102 | 1 uF | 20%, Cer | |
| C.....4 | | 59.30+6100 | 1 uF | -20%, Ta | |
| C.....5 | | 59.32+4100 | 1 nF | 20%, Cer | |
| C.....6 | | 59.30+6100 | 1 uF | 20%, Ta | |
| C.....7 | | 59.22+8479 | 4.7 uF | 20%, El | |
| C.....8 | | 59.22+8479 | 4.7 uF | 20%, El | |
| C.....9 | | 59.32+0100 | 10 pF | 20%, Cer | |
| C.....10 | | 59.22+4101 | 100 uF | -10%, El | |
| C.....11 | | 59.32+0101 | 10 pF | 20%, Cer | |
| C.....12 | | 59.22+4101 | 100 uF | -10%, El | |
| C.....13 | | 59.32+1330 | 22 uF | -10%, El | |
| C.....14 | | 59.32+1330 | 33 pF | 20%, Cer | |
| C.....15 | | 59.32+1330 | 33 pF | 20%, Cer | |
| C.....16 | | 59.22+5220 | 22 uF | -10%, El | |
| C.....17 | | 59.22+6100 | 10 uF | -10%, El | |
| C.....18 | | 59.22+0101 | 100 pF | -10%, Cer | |
| C.....19 | | 59.32+0101 | 100 pF | -10%, Cer | |
| C.....20 | | 59.22+6100 | 10 uF | -10%, El | |
| D.....1 | | 50.04+0125 | | IN4448 Si | |
| D.....2 | | 50.04+0125 | | IN4448 Si | |
| D.....3 | | 50.04+0125 | | IN4448 Si | |
| D.....4 | | 50.04+0125 | | IN4448 Si | |
| D.....5 | | 50.04+0125 | | IN4448 Si | |
| IC....1 | | 50.05+0257 | | LIN LM 301 TI | |
| IC....2 | | 50.05+0257 | | LIN LM 301 TI | |
| J.....1 | | 1+710.350.00 | | Jack-Socket S | |
| J.....2 | | 1+710.350.00 | | Jack-Socket S | |
| J.....3 | | 1+710.350.00 | | Jack-Socket S | |
| J.....4 | | 54.01+0291 | 6-Pole | CIS-Socket-Strip AHP | |
| J.....5 | | 54.01+0291 | 11-Pole | CIS-Socket-Strip AHP | |
| K.....1 | | 56.04+0141 | PZ 4 | 24V 4W | |

STUDER 82/05/26 RW MIC. PHONES AMPL. 1+710.350.00 PAGE 1

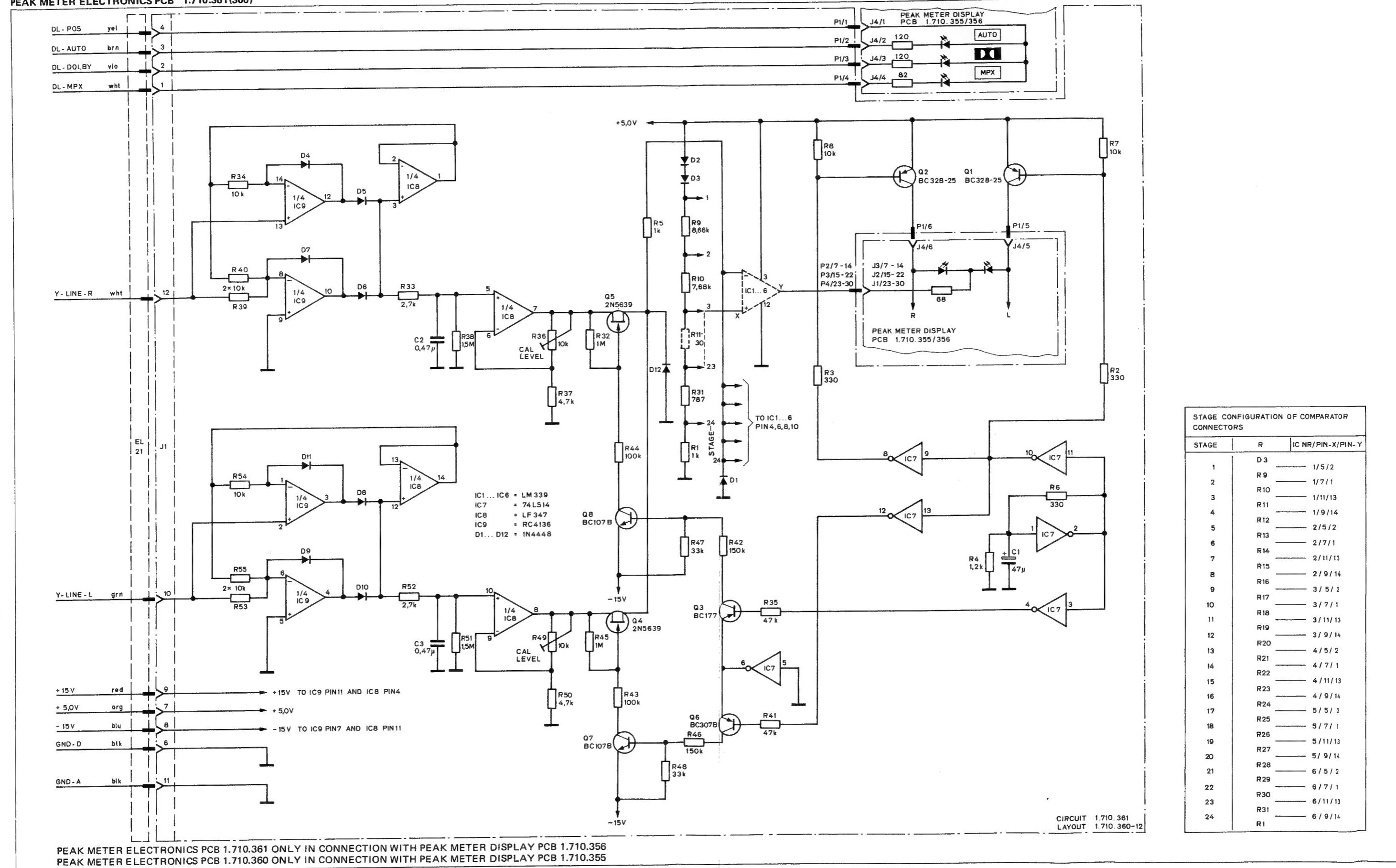
| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|---------------|----------|--------------|----------|-----------------------------|--------|
| Q.....1 | | 50.03+0496 | BC 560 C | PNP | |
| Q.....2 | | 50.03+0496 | BC 560 C | PNP | |
| Q.....3 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....4 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....5 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....6 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....7 | | 50.03+0317 | BC 251 A | PNP, BC 307 A | |
| Q.....8 | | 50.03+0318 | BC 237 B | NPN, BC 547 B | |
| Q.....9 | | 50.03+0317 | BC 251 A | PNP, BC 307 A | |
| Q.....10 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....11 | | 50.03+0497 | BC 550 C | NPN | |
| Q.....12 | | 50.03+0497 | BC 550 C | NPN | |
| R.....1 | | 1+710.350.01 | 25 kOhm | +10% | S |
| R.....2 | | 57.11+4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....3 | | 57.11+4103 | 10 kOhm | 5%, 0.25W, CF | |
| (02) R.....4 | | 57.11+4124 | 120 kOhm | 5%, 0.25W, CF | |
| R.....5 | | 57.11+4104 | 100 kOhm | 5%, 0.25W, CF | |
| (02) R.....6 | | 57.11+4471 | 470 Ohm | 5%, 0.25W, CF | |
| R.....7 | | 57.11+4471 | 20 kOhm | 5%, 0.25W, CF | |
| (02) R.....8 | | 57.11+4226 | 120 kOhm | 5%, 0.25W, CF | |
| R.....9 | | 57.11+4104 | 100 kOhm | 5%, 0.25W, CF | |
| (02) R.....10 | | 57.11+4471 | 470 Ohm | 5%, 0.25W, CF | |
| R.....11 | | 57.11+4224 | 220 kOhm | 5%, 0.25W, CF | |
| R.....12 | | 57.11+4224 | 200 kOhm | 5%, 0.25W, CF | |
| R.....13 | | 57.11+4183 | 18 kOhm | 5%, 0.25W, CF | |
| R.....14 | | 57.11+4102 | 1 kOhm | 5%, 0.25W, CF | |
| R.....15 | | 57.11+4153 | 15 kOhm | 5%, 0.25W, CF | |
| R.....16 | | 57.11+4102 | 1 kOhm | 5%, 0.25W, CF | |
| R.....17 | | 57.11+4103 | 15 kOhm | 5%, 0.25W, CF | |
| R.....18 | | 57.11+4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....19 | | 57.11+4103 | 10 kOhm | 5%, 0.25W, CF | |
| R.....20 | | 57.12+4471 | 470 Ohm | 5%, 0.33W, CF | |
| R.....21 | | 57.11+4683 | 68 kOhm | 5%, 0.25W, CF | |
| R.....22 | | 57.11+4224 | 200 kOhm | 5%, 0.25W, CF | |
| R.....23 | | 57.11+4183 | 18 kOhm | 5%, 0.25W, CF | |
| R.....24 | | 57.12+4471 | 470 Ohm | 5%, 0.33W, CF | |

STUDER 82/05/26 RW MIC. PHONES AMPL. 1+710.350.00 PAGE 2

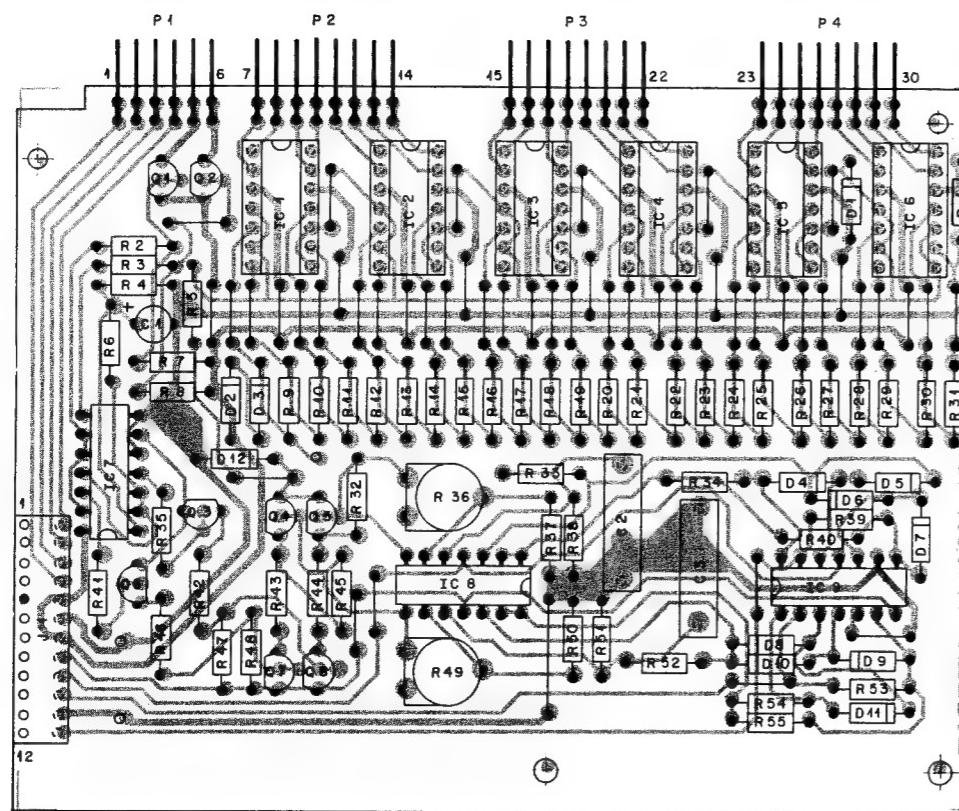
| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|--------------|----------|------------|----------|-----------------------------|--------|
| R....25 | | 57.11+4683 | 68 kOhm | 5%, 0.25W, CF | |
| R....26 | | 57.11+4103 | 100 kOhm | 5%, 0.25W, CF | |
| R....27 | | 57.11+4101 | 100 kOhm | 5%, 0.25W, CF | |
| (01) R....28 | | 57.11+4471 | 470 Ohm | 5%, 0.25W, CF | |
| R....29 | | 57.11+4683 | 68 kOhm | 5%, 0.25W, CF | |
| R....30 | | 57.11+4683 | 68 kOhm | 5%, 0.25W, CF | |
| (01) R....31 | | 57.11+4471 | 470 Ohm | 5%, 0.25W, CF | |

Cer=CERAMIC, El=ELCTRICAL, Ta=TANTALUM
CF=CARBON FILM
MANUFACTURER: TI= TEXAS INSTRUMENT S=STUDER
ORIG 81/02/17 (01) 81/03/26 (02) 82/03/31
STUDER 82/05/26 RW MIC. PHONES AMPL. 1+710.350.00 PAGE 3

PEAK METER ELECTRONICS PCB 1.710.361(360)



PEAK METER ELECTRONICS PCB 1.710.361(360)



| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|----------|------------|-----------|-----------|-------------------------------|--------|
| C.....1 | 59.12.5220 | 22 uF | - | 20% 10V EL | |
| C.....2 | 59.12.2474 | +47 uF | 5% | PE | |
| C.....3 | 59.12.2474 | +47 uF | 5% | PE | |
| D.....1 | 50.04.0125 | 1N4448 | | Si | |
| D.....2 | 50.04.0125 | 1N4448 | | Si | |
| D.....3 | 50.04.0125 | 1N4448 | | Si | |
| D.....4 | 50.04.0125 | 1N4448 | | Si | |
| D.....5 | 50.04.0125 | 1N4448 | | Si | |
| D.....6 | 50.04.0125 | 1N4448 | | Si | |
| D.....7 | 50.04.0125 | 1N4448 | | Si | |
| D.....8 | 50.04.0125 | 1N4448 | | Si | |
| D.....9 | 50.04.0125 | 1N4448 | | Si | |
| D.....10 | 50.04.0125 | 1N4448 | | Si | |
| D.....11 | 50.04.0125 | 1N4448 | | Si | |
| D.....12 | 50.04.0125 | 1N4448 | | Si | |
| IC....1 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....2 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....3 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....4 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....5 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....6 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....7 | 50.11.0104 | LM 339 | LIN | UA 339 | |
| IC....8 | 50.06.0014 | 74LS 14 | TTL | | |
| IC....9 | 50.05.0232 | RC 4136 | TL 084 | N, TI, RAY, TI, RC4136N | |
| J.....1 | 54.01.0215 | 12-Pole | | | |
| P.....1 | 54.01.0426 | 6-Pole | Pin-Strip | | |
| P.....2 | 54.01.0428 | 8-Pole | Pin-Strip | | |
| P.....3 | 54.01.0428 | 8-Pole | Pin-Strip | | |
| P.....4 | 54.01.0428 | 8-Pole | Pin-Strip | | |
| Q....1 | 50.03.0351 | BC 327-25 | PNP | P, | |
| Q....2 | 50.03.0351 | BC 327-25 | PNP | P, | |
| Q....3 | 50.03.0351 | BC 307 II | PNP | H,P, | |

STUDER 81/11/12 RW PEAK METER ELECTRONICS MK 2 1.710.361.00 PAGE 1

| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|---------|------------|-----------|---------------|-----------------------------|--------|
| Q....1 | 50.03.0331 | ZN 5639 | FET | M,SX+ | |
| Q....2 | 50.03.0331 | ZN 5639 | FET | M,SX+ | |
| Q....3 | 50.03.0515 | BC 307 II | PNP | M,P, | |
| Q....4 | 50.03.0436 | BC 237 B | NPN | | |
| Q....5 | 50.03.0436 | BC 237 B | NPN | | |
| R....1 | 57.11.3102 | 1.0 kOhm | 1%, 0-25W, MF | | |
| R....2 | 57.11.4331 | 330 Ohm | 5%, 0-25W, CF | | |
| R....3 | 57.11.4331 | 330 Ohm | 5%, 0-25W, CF | | |
| R....4 | 57.11.4331 | 330 Ohm | 5%, 0-25W, CF | | |
| R....5 | 57.11.3102 | 1.0 kOhm | 1%, 0-25W, MF | | |
| R....6 | 57.11.4331 | 330 Ohm | 5%, 0-25W, CF | | |
| R....7 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....8 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....9 | 57.39.3091 | 8.6k | 1%, 0-25W, MF | | |
| R....10 | 57.39.3781 | 7.6k | 1%, 0-25W, MF | | |
| R....11 | 57.11.3682 | 6.2 kOhm | 1%, 0-25W, MF | | |
| R....12 | 57.11.3622 | 6.2 kOhm | 1%, 0-25W, MF | | |
| R....13 | 57.39.5491 | 5.49 kOhm | 1%, 0-25W, MF | | |
| R....14 | 57.39.3132 | 4.87 kOhm | 1%, 0-25W, MF | | |
| R....15 | 57.39.3132 | 4.87 kOhm | 1%, 0-25W, MF | | |
| R....16 | 57.11.3392 | 3.9 kOhm | 1%, 0-25W, MF | | |
| R....17 | 57.39.3481 | 3.48 kOhm | 1%, 0-25W, MF | | |
| R....18 | 57.39.3091 | 3.09 kOhm | 1%, 0-25W, MF | | |
| R....19 | 57.11.2772 | 2.7 kOhm | 1%, 0-25W, MF | | |
| R....20 | 57.11.3132 | 2.0 kOhm | 1%, 0-25W, MF | | |
| R....21 | 57.11.3222 | 2.2 kOhm | 1%, 0-25W, MF | | |
| R....22 | 57.11.3202 | 2.0 kOhm | 1%, 0-25W, MF | | |
| R....23 | 57.11.3332 | 3.3 kOhm | 1%, 0-25W, MF | | |
| R....24 | 57.39.2551 | 2.55 kOhm | 1%, 0-25W, MF | | |
| R....25 | 57.11.3202 | 2.0 kOhm | 1%, 0-25W, MF | | |
| R....26 | 57.11.3162 | 1.0 kOhm | 1%, 0-25W, MF | | |
| R....27 | 57.11.3132 | 1.3 kOhm | 1%, 0-25W, MF | | |
| R....28 | 57.11.3102 | 1.0 kOhm | 1%, 0-25W, MF | | |
| R....29 | 57.11.3821 | 820 Ohm | 1%, 0-25W, MF | | |
| R....30 | 57.39.1371 | 1.37 kOhm | 1%, 0-25W, MF | | |
| R....31 | 57.39.7870 | 787 Ohm | 1%, 0-25W, MF | | |

STUDER 81/11/12 RW PEAK METER ELECTRONICS MK 2 1.710.361.00 PAGE 2

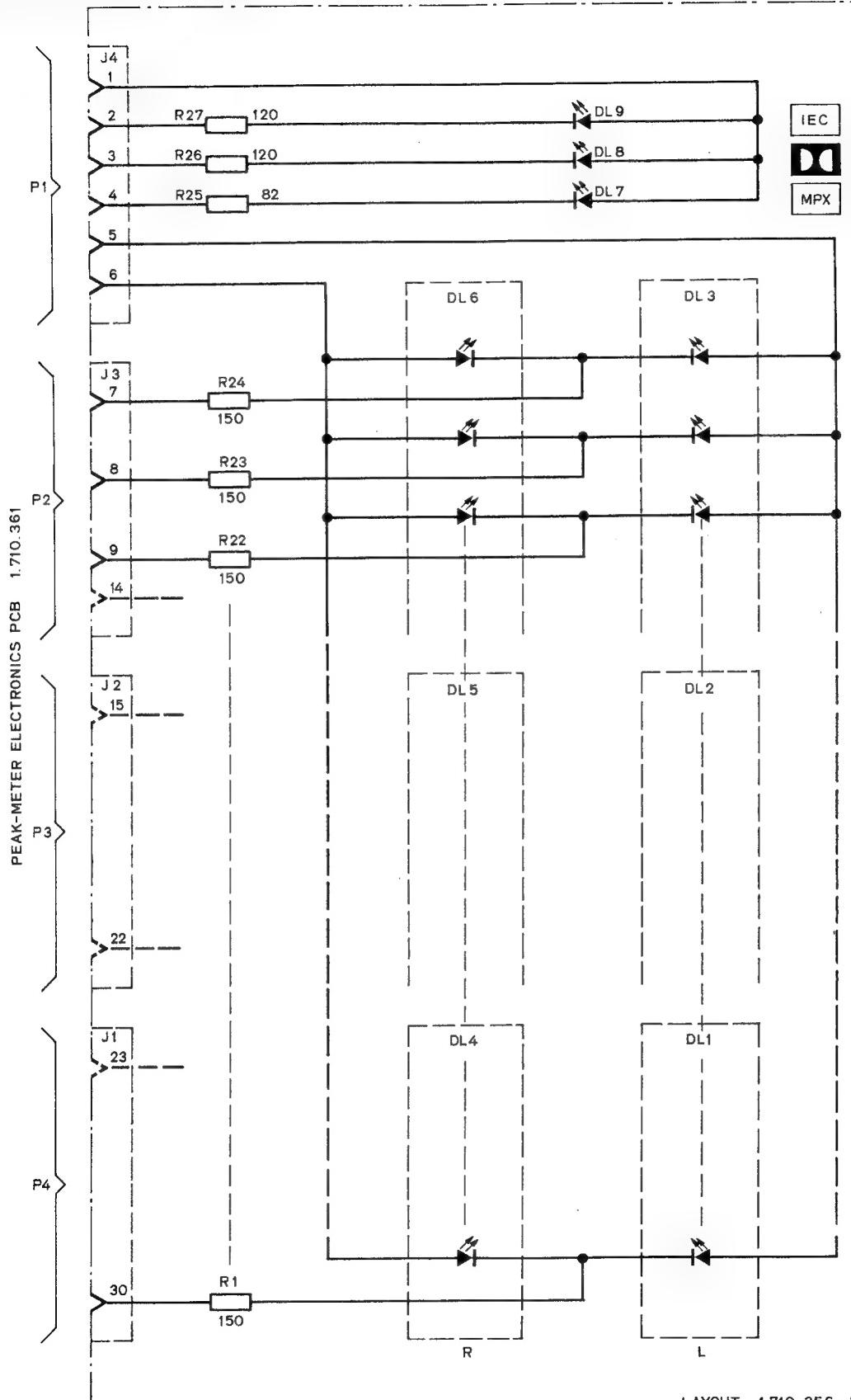
| IND. | POS.-NO. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | HANUF. |
|---------|------------|----------|---------------------|-----------------------------|--------|
| R....32 | 57.11.4105 | 1 kOhm | 5%, 0-25W, CF | | |
| R....33 | 57.11.3272 | 2.7 kOhm | 1%, 0-25W, MF | | |
| R....34 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....35 | 57.11.4473 | 47 kOhm | 5%, 0-25W, CF | | |
| R....36 | 57.11.4473 | 10 kOhm | 20%, 0-15W, POT+LIN | | |
| R....37 | 57.11.4472 | 4.7 kOhm | 5%, 0-25W, CF | | |
| R....38 | 57.11.4155 | 1.5 kOhm | 5%, 0-25W, CF | | |
| R....39 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....40 | 57.11.4403 | 4.7 kOhm | 5%, 0-25W, CF | | |
| R....41 | 57.11.4156 | 150 kOhm | 5%, 0-25W, CF | | |
| R....42 | 57.11.4156 | 150 kOhm | 5%, 0-25W, CF | | |
| R....43 | 57.11.4104 | 100 kOhm | 5%, 0-25W, CF | | |
| R....44 | 57.11.4104 | 100 kOhm | 5%, 0-25W, CF | | |
| R....45 | 57.11.4105 | 1 kOhm | 5%, 0-25W, CF | | |
| R....46 | 57.11.4154 | 150 kOhm | 5%, 0-25W, CF | | |
| R....47 | 57.11.4333 | 33 kOhm | 5%, 0-25W, CF | | |
| R....48 | 57.11.4333 | 33 kOhm | 5%, 0-25W, CF | | |
| R....49 | 58.02.5103 | 10 kOhm | 20%, 0-25W, POT+LIN | | |
| R....50 | 57.11.4472 | 4.7 kOhm | 5%, 0-25W, CF | | |
| R....51 | 57.11.4155 | 1.5 kOhm | 5%, 0-25W, CF | | |
| R....52 | 57.11.4152 | 2.0 kOhm | 1%, 0-25W, MF | | |
| R....53 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....54 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |
| R....55 | 57.11.4103 | 10 kOhm | 5%, 0-25W, CF | | |

MF=Metal Film, CF=Carbon Film, POT=Pot.Meter Carbon Film,
 TA=Tantalum, PE=Polyester,
 MANUFACTURER:N=NATIONAL, T=TEXAS INSTRUMENTS, P=PHILIPS,
 H=NOTOROLA, S=SIGHETICS, S=SILICONIX

DRIG 81/10/20

STUDER 81/11/12 RW PEAK METER ELECTRONICS MK 2 1.710.361.00 PAGE 3

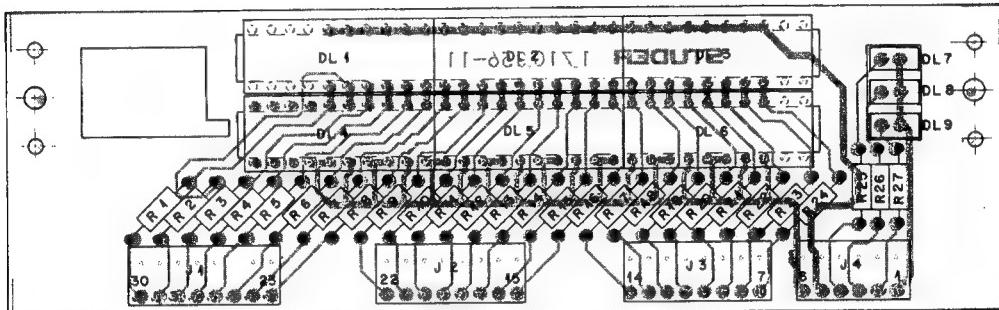
PEAK METER DISPLAY PCB 1.710.356



LAYOUT 1.710.356-11

PEAK METER DISPLAY PCB 1.710.356 ONLY IN WITH PEAK METER ELECTRONICS PCB 1.710.361

PEAK METER DISPLAY PCB 1.710.356



| INC. | PCS.NG. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. | INC. | PCS.NG. | PART NO. | VALUE | SPECIFICATIONS / EQUIVALENT | MANUF. |
|---------|------------|-----------|---------------|-----------------------------|--------|---------|------------|----------|-------------|-----------------------------|--------|
| DL....1 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GT | R....23 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | |
| DL....2 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GI | R....24 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | |
| DL....3 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GT | R....25 | 57.11.4020 | .02 Chm | 5% 0-25W CF | | |
| DL....4 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GT | R....26 | 57.11.4121 | 120 Chm | 5% 0-25W CF | | |
| DL....5 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GI | R....27 | 57.11.4121 | 120 Chm | 5% 0-25W CF | | |
| DL....6 | 5C.C4.2134 | MV 57164 | 2-4 mCD 820mA | | GI | | | | | | |
| DL....7 | 5C.C4.2119 | MV 57124 | 2-4 mCD 820mA | HON+GI | | | | | | | |
| DL....8 | 5C.C4.2119 | MV 57124 | 2-4 mCD 820mA | HON+GI | | | | | | | |
| DL....9 | 5C.C4.2119 | MV 57124 | 2-4 mCD 820mA | HON+GI | | | | | | | |
| J....1 | 54.C1.0262 | CIS 8-POL | | | | R....23 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | |
| J....2 | 54.C1.0262 | CIS 8-POL | | | | R....24 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | |
| J....3 | 54.C1.0262 | CIS 8-POL | | | | R....25 | 57.11.4020 | .02 Chm | 5% 0-25W CF | | |
| J....4 | 54.C1.0238 | CIS 8-POL | | | | R....26 | 57.11.4121 | 120 Chm | 5% 0-25W CF | | |
| R....1 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | R....27 | 57.11.4121 | 120 Chm | 5% 0-25W CF | | |
| R....2 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....3 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....4 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....5 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....6 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....7 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....8 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....9 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....10 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....11 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....12 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....13 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....14 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....15 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....16 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....17 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....18 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....19 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....20 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....21 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |
| R....22 | 57.11.4151 | 150 Chm | 5% 0-25W CF | | | | | | | | |

S T U D E R 81/1C/23 Rb PEAK METER DISPLAY MK 2

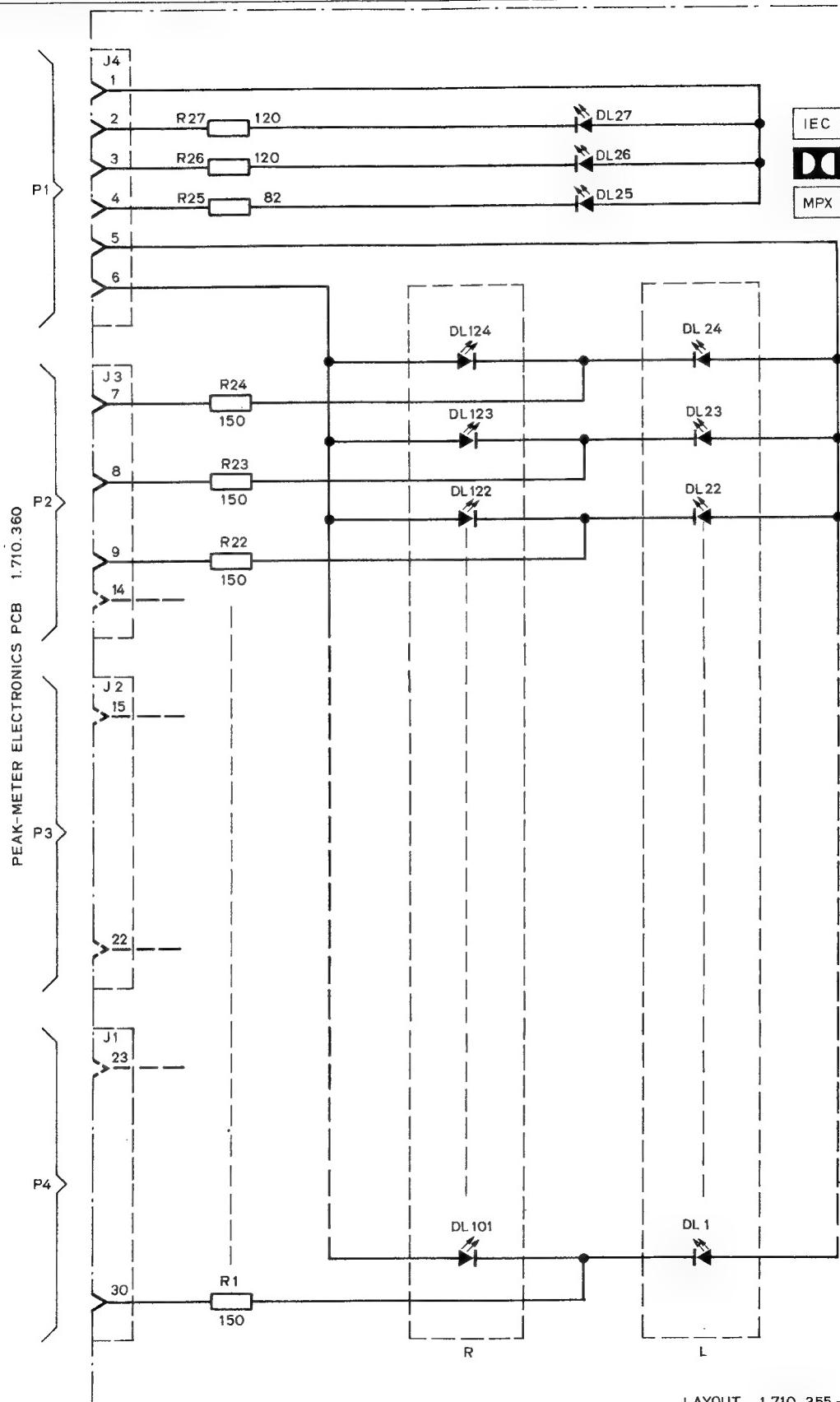
1.710.356.00 PAGE 1

CF= Carbon Film
MANUFACTURER: GI=GENERAL INSTRUMENTS
CRIG A1/10/20

S T U D E R 81/1C/23 Rb PEAK METER DISPLAY MK 2

1.710.356.00 PAGE 2

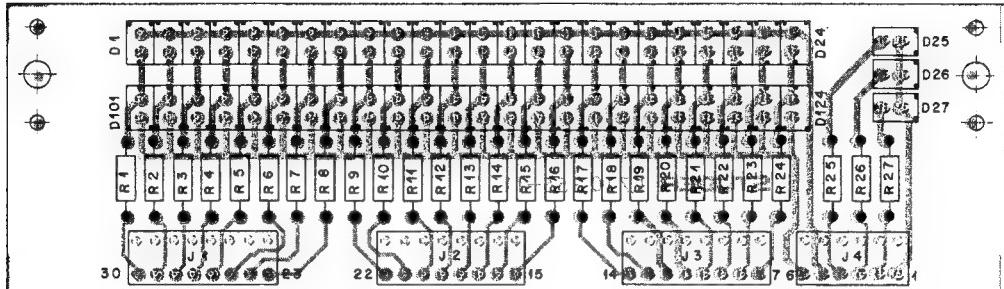
PEAK METER DISPLAY PCB 1.710.355



LAYOUT 1.710.355-11

PEAK METER DISPLAY PCB 1.710.355 ONLY IN CONNECTION WITH PEAK METER ELECTRONICS PCB 1.710.360

PEAK METER DISPLAY PCB 1.710.355



S T U D E R 83/01/18 RW PEAK METER DISPLAY 1.710.355.00 PAGE 1 S T U D E R 83/01/18 RW PEAK METER DISPLAY 1.710.355.00 PAGE 3

| IND. | POS. NO. | PART NO. | VALUE | SPECIFICATIONS / ÉQUIVALENT | MANUF. |
|------|----------|------------|----------|-----------------------------|--------|
| DL | ==111 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==112 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==113 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==114 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==115 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==116 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==117 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==118 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==119 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==120 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==121 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==122 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==123 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| DL | ==124 | 50.04+2119 | MV 57124 | 2-4 mfd .220mA | MON/GI |
| J | ====1 | 54.01-0262 | 6-Pole | C15-Socket-Strip | AMP |
| J | ====2 | 54.01-0262 | 6-Pole | C15-Socket-Strip | AMP |
| J | ====3 | 54.01-0262 | 6-Pole | C15-Socket-Strip | AMP |
| J | ====4 | 54.01-0238 | 6-Pole | C15-Socket-Strip | AMP |
| R | =====1 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====2 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====3 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====4 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====5 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====6 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====7 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====8 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====9 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====10 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====11 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====12 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====13 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====14 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====15 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====16 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |
| R | =====17 | 57.11+4151 | 150 Ohm | 5%, 0.25W, CF | |

STUDE R 83/01/18 RW PEAK METER DISPLAY 1.710.355.00 PAGE 2

SERVICE WIRING LIST MKII

S E R V I C E - V E R D R A H T U N G S - L I S T E
***** KABELBUND B710 MK 2 (SERVICE LISTE)

*** 1.710.371.00 ***

AEND.DAT. 82/02/15-00

PROC.DAT. 83/01/11 * 10:11

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | | | | |
|------------|----------------|---------------|-------|----------------|---|----|----|-----------------------------|----|----|-----------------------------|---|----|----|----|----|
| | | | | | TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | | | |
| | 1.710.371.93 | 0320 | GB | S-REC | N | 00 | 01 | 01 | 01 | 01 | 310 | N | 00 | 01 | 09 | 11 |
| | 1.710.371.93 | 0400 | GN | S-STOP | N | 00 | 01 | 01 | 02 | 02 | 310 | N | 00 | 01 | 09 | 10 |
| | 1.710.371.93 | 0540 | VI | S-PLAY | N | 00 | 01 | 01 | 03 | 03 | 310 | N | 00 | 01 | 09 | 09 |
| | 1.710.371.93 | 0700 | WS | S-FORW | N | 00 | 01 | 01 | 04 | 04 | 310 | N | 00 | 01 | 09 | 06 |
| | 1.710.371.93 | 0320 | GB | S-REW | N | 00 | 01 | 01 | 05 | 05 | 310 | N | 00 | 01 | 09 | 04 |
| | 1.710.371.93 | 0540 | VI | S-PAUSE | N | 00 | 01 | 01 | 06 | 06 | 310 | N | 00 | 01 | 09 | 01 |
| | 1.710.371.93 | 0620 | GR | S-ZERO | N | 00 | 01 | 01 | 07 | 07 | 310 | N | 00 | 01 | 09 | 08 |
| | 1.710.371.93 | 0160 | BR | S-RUNUP | N | 00 | 01 | 01 | 08 | 08 | 310 | N | 00 | 01 | 09 | 05 |
| | 1.710.371.93 | 0400 | GN | S-MODE | N | 00 | 01 | 01 | 10 | 10 | 310 | N | 00 | 01 | 09 | 03 |
| | 1.710.371.93 | 0170 | BR | S-SET | N | 00 | 01 | 01 | 11 | 11 | 330 | L | 00 | 01 | 31 | 02 |
| | 1.710.371.93 | 0630 | GR | S-START | N | 00 | 01 | 01 | 12 | 12 | 350 | L | 00 | 01 | 31 | 03 |
| | 1.710.371.93 | 0710 | WS | S-CSTOP | N | 00 | 01 | 01 | 13 | 13 | 365 | L | 00 | 01 | 31 | 04 |
| | 1.710.371.93 | 0330 | GB | S-CLEAR | N | 00 | 01 | 01 | 14 | 14 | 380 | L | 00 | 01 | 31 | 05 |
| | 1.710.371.93 | 0420 | GN | S-TIPLAY | N | 00 | 01 | 01 | 15 | 15 | 400 | L | 00 | 01 | 31 | 06 |
| | 1.710.371.93 | 0550 | VI | S-TIREC | N | 00 | 01 | 01 | 16 | 16 | 410 | L | 00 | 01 | 31 | 07 |
| | 1.710.371.93 | 0080 | SW | GND-PFG | N | 00 | 01 | 01 | 17 | 17 | 330 | L | 00 | 01 | 31 | 01 |
| | 1.710.371.93 | 0070 | SW | GND-KB | N | 00 | 01 | 01 | 18 | 18 | 310 | N | 00 | 01 | 09 | 07 |
| | 1.710.371.93 | 0160 | BR | S-REN | N | 00 | 01 | 01 | 19 | 19 | 310 | N | 00 | 01 | 09 | 12 |
| | 1.710.371.93 | 0180 | BR | S-REN | N | 00 | 01 | 01 | 20 | 20 | 420 | L | 00 | 01 | 31 | 08 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | | | | |
|------------|----------------|---------------|-------|----------------|---|----|----|-----------------------------|----|----|-----------------------------|----|----|----|----|----|
| | | | | | TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | | | |
| | 1.710.371.93 | 0570 | VI | VAC-1 | N | 00 | 01 | 02 | 01 | 01 | 450 | D | 00 | 01 | 10 | 12 |
| | 1.710.371.93 | 0570 | VI | VAC-2 | N | 00 | 01 | 02 | 02 | 02 | 450 | D | 00 | 01 | 10 | 11 |
| | 1.710.371.93 | 0280 | DR | + 5V | N | 00 | 01 | 02 | 03 | 03 | 450 | D | 00 | 01 | 10 | 04 |
| 01) | 1.710.371.93 | 0650 | GR | Y-TIMER | N | 00 | 01 | 02 | 05 | 05 | 450 | D | 00 | 01 | 10 | 06 |
| 01) | 1.710.371.93 | 0440 | GN | Y-AM | N | 00 | 01 | 02 | 06 | 06 | 450 | D | 00 | 01 | 10 | 07 |
| 01) | 1.710.371.93 | 0340 | GB | Y-PM | N | 00 | 01 | 02 | 07 | 07 | 450 | D | 00 | 01 | 10 | 08 |
| | 1.710.371.93 | 0100 | SW | GND-DISP | N | 00 | 01 | 02 | 08 | 08 | 450 | D | 00 | 01 | 10 | 09 |
| | 1.710.371.93 | 0730 | WS | DL-REC | N | 00 | 01 | 02 | 09 | 09 | 450 | D | 00 | 01 | 10 | 05 |
| | 1.710.371.93 | 0440 | GN | Y-DATA | N | 00 | 01 | 02 | 10 | 10 | 450 | II | 00 | 01 | 10 | 02 |
| | 1.710.371.93 | 0190 | BR | Y-CLOCK | N | 00 | 01 | 02 | 11 | 11 | 450 | D | 00 | 01 | 10 | 01 |
| | 1.710.371.93 | 0650 | GR | Y-DLEN | N | 00 | 01 | 02 | 12 | 12 | 450 | D | 00 | 01 | 10 | 03 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | | | | |
|------------|----------------|---------------|-------|----------------|---|----|----|-----------------------------|----|----|-----------------------------|---|----|----|----|----|
| | | | | | TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | | | |
| | 1.710.371.93 | 0110 | SW | GND-HS | N | 00 | 01 | 06 | 01 | 01 | 500 | N | 00 | 01 | 12 | 12 |
| | 1.710.371.93 | 0050 | SW | GND-D | N | 00 | 01 | 06 | 02 | 02 | 280 | N | 00 | 01 | 11 | 01 |
| | 1.710.371.93 | 0200 | BR | Y-READY | N | 00 | 01 | 06 | 03 | 03 | 500 | N | 00 | 01 | 12 | 06 |
| | 1.710.371.93 | 0520 | VI | S-STDBY | N | 00 | 01 | 06 | 04 | 04 | 280 | N | 00 | 01 | 11 | 08 |
| | 1.710.371.93 | 0580 | VI | Y-REC | N | 00 | 01 | 06 | 07 | 07 | 500 | M | 00 | 01 | 12 | 04 |
| | 1.710.371.93 | 0450 | GN | Y-MUTE2 | N | 00 | 01 | 06 | 08 | 08 | 500 | M | 00 | 01 | 12 | 11 |
| | 1.710.371.93 | 0740 | WS | Y-MUTE1 | N | 00 | 01 | 06 | 09 | 09 | 500 | N | 00 | 01 | 12 | 02 |
| | 1.710.371.93 | 0350 | GB | Y-CAL | N | 00 | 01 | 06 | 10 | 10 | 500 | N | 00 | 01 | 12 | 07 |
| | 1.710.371.93 | 0610 | GR | S-ON | N | 00 | 01 | 06 | 11 | 11 | 280 | N | 00 | 01 | 11 | 07 |
| | 1.710.371.93 | 0660 | GR | S-MET | N | 00 | 01 | 06 | 12 | 12 | 500 | N | 00 | 01 | 12 | 08 |
| | 1.710.371.93 | 0740 | WS | S-EQ | N | 00 | 01 | 06 | 13 | 13 | 500 | N | 00 | 01 | 12 | 09 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | | | | |
|------------|----------------|---------------|-------|----------------|---|----|----|-----------------------------|----|----|-----------------------------|---|----|----|----|----|
| | | | | | TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | LAENGE TYP VERDRAHTUNGSPORT | | | | | |
| | 1.710.371.93 | 0010 | SW | GND-WM | N | 00 | 01 | 07 | 01 | 01 | 140 | D | 00 | 01 | 16 | 04 |
| | 1.710.371.93 | 0310 | SW | GND-D | N | 00 | 01 | 07 | 02 | 02 | 140 | D | 00 | 01 | 16 | 03 |
| | 1.710.371.93 | 0370 | GN | -22V | N | 00 | 01 | 07 | 03 | 03 | 140 | D | 00 | 01 | 16 | 09 |
| | 1.710.371.93 | 0130 | BR | +22V | N | 00 | 01 | 07 | 05 | 05 | 140 | D | 00 | 01 | 16 | 10 |
| | 1.710.371.93 | 0250 | DR | + 5V | N | 00 | 01 | 07 | 06 | 06 | 140 | D | 00 | 01 | 16 | 01 |
| | 1.710.371.93 | 0500 | VI | VAC-2 | N | 00 | 01 | 07 | 07 | 07 | 140 | D | 00 | 01 | 16 | 08 |
| | 1.710.371.93 | 0500 | VI | VAC-1 | N | 00 | 01 | 07 | 08 | 08 | 140 | D | 00 | 01 | 16 | 07 |
| | 1.710.371.93 | 0290 | GB | S-ON | N | 00 | 01 | 07 | 09 | 09 | 140 | D | 00 | 01 | 16 | 06 |
| | 1.710.371.93 | 0590 | GR | + 10V | N | 00 | 01 | 07 | 10 | 10 | 140 | D | 00 | 01 | 16 | 05 |

SERVICE WIRING LIST MKII

ANSCHLUSS VON KEYBOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G --- | | | | --- A N Z A P F U N G --- | | | | ----- E N D E ----- | | | | BEM | | |
|------------|----------------|---------------|-------|---------|------|---------------------|------------------|--------|-------|---------------------------|--------|-----|------------------|---------------------|-----|------------------|--------|-----|----|----|
| | | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | | | |
| AS | GR | EL | PT | ANFANG | AS | GR | EL | PT | TOTAL | AS | GR | EL | PT | AS | GR | EL | PT | | | |
| | 1.710.371.93 | 0540 | VI | S-PAUSE | N | 00 | 01 | 09 | 01 | | | | | | 310 | N | 00 | 01 | 01 | 06 |
| | 1.710.371.93 | 0400 | GN | S-MODE | N | 00 | 01 | 09 | 03 | | | | | | 310 | N | 00 | 01 | 01 | 10 |
| | 1.710.371.93 | 0320 | GR | S-REW | N | 00 | 01 | 09 | 04 | | | | | | 310 | N | 00 | 01 | 01 | 05 |
| | 1.710.371.93 | 0160 | BR | S-RUNUP | N | 00 | 01 | 09 | 05 | | | | | | 310 | N | 00 | 01 | 01 | 08 |
| | 1.710.371.93 | 0700 | WS | S-FORW | N | 00 | 01 | 09 | 06 | | | | | | 310 | N | 00 | 01 | 01 | 04 |
| | 1.710.371.93 | 0070 | SW | GND-KB | N | 00 | 01 | 09 | 07 | | | | | | 310 | N | 00 | 01 | 01 | 18 |
| | 1.710.371.93 | 0620 | GR | S-ZERO | N | 00 | 01 | 09 | 08 | | | | | | 310 | N | 00 | 01 | 01 | 07 |
| | 1.710.371.93 | 0540 | VI | S-PLAY | N | 00 | 01 | 09 | 09 | | | | | | 310 | N | 00 | 01 | 01 | 03 |
| | 1.710.371.93 | 0400 | GN | S-STOP | N | 00 | 01 | 09 | 10 | | | | | | 310 | N | 00 | 01 | 01 | 02 |
| | 1.710.371.93 | 0320 | GB | S-REC | N | 00 | 01 | 09 | 11 | | | | | | 310 | N | 00 | 01 | 01 | 01 |
| | 1.710.371.93 | 0160 | BR | S-REN | N | 00 | 01 | 09 | 12 | | | | | | 310 | N | 00 | 01 | 01 | 19 |

ANSCHLUSS VOM COUNTER DISPLAY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G --- | | | | --- A N Z A P F U N G --- | | | | ----- E N D E ----- | | | | BEM | | |
|------------|----------------|---------------|-------|----------|------|---------------------|------------------|--------|-------|---------------------------|--------|-----|------------------|---------------------|-----|------------------|--------|-----|----|----|
| | | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | | | |
| AS | GR | EL | PT | ANFANG | AS | GR | EL | PT | TOTAL | AS | GR | EL | PT | AS | GR | EL | PT | | | |
| | 1.710.371.93 | 0190 | BR | Y-CLOCK | D | 00 | 01 | 10 | 01 | | | | | | 450 | N | 00 | 01 | 02 | 11 |
| | 1.710.371.93 | 0440 | GN | Y-DATA | D | 00 | 01 | 10 | 02 | | | | | | 450 | N | 00 | 01 | 02 | 10 |
| | 1.710.371.93 | 0650 | GR | Y-DLEN | D | 00 | 01 | 10 | 03 | | | | | | 450 | N | 00 | 01 | 02 | 12 |
| | 1.710.371.93 | 0280 | DR | + 5V | D | 00 | 01 | 10 | 04 | | | | | | 450 | N | 00 | 01 | 02 | 03 |
| 01) | 1.710.371.93 | 0730 | WS | DL-REC | D | 00 | 01 | 10 | 05 | | | | | | 450 | N | 00 | 01 | 02 | 09 |
| 01) | 1.710.371.93 | 0650 | GR | Y-TIMER | D | 00 | 01 | 10 | 06 | | | | | | 450 | N | 00 | 01 | 02 | 05 |
| 01) | 1.710.371.93 | 0440 | GN | Y-AM | D | 00 | 01 | 10 | 07 | | | | | | 450 | N | 00 | 01 | 02 | 06 |
| 01) | 1.710.371.93 | 0340 | GR | Y-PM | D | 00 | 01 | 10 | 08 | | | | | | 450 | N | 00 | 01 | 02 | 07 |
| | 1.710.371.93 | 0100 | SW | GND-DISP | D | 00 | 01 | 10 | 09 | | | | | | 450 | N | 00 | 01 | 02 | 08 |
| | 1.710.371.93 | 0570 | VI | VAC-2 | D | 00 | 01 | 10 | 11 | | | | | | 450 | N | 00 | 01 | 02 | 02 |
| | 1.710.371.93 | 0570 | VI | VAC-1 | D | 00 | 01 | 10 | 12 | | | | | | 450 | N | 00 | 01 | 02 | 01 |

ANSCHLUSS VON DEN TOGGLE SWITCHES

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G --- | | | | --- A N Z A P F U N G --- | | | | ----- E N D E ----- | | | | BEM | | |
|------------|----------------|---------------|-------|---------|------|---------------------|------------------|--------|-------|---------------------------|--------|-----|------------------|---------------------|-----|------------------|--------|-----|----|----|
| | | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | | | |
| AS | GR | EL | PT | ANFANG | AS | GR | EL | PT | TOTAL | AS | GR | EL | PT | AS | GR | EL | PT | | | |
| | 1.710.371.93 | 0050 | SW | GND-D | N | 00 | 01 | 11 | 01 | | | | | | 280 | N | 00 | 01 | 06 | 02 |
| | 1.710.371.93 | 0210 | BR | S-MON | N | 00 | 01 | 11 | 02 | | | | | | 560 | N | 00 | 01 | 12 | 01 |
| | 1.710.371.93 | 0360 | GB | S-NR | N | 00 | 01 | 11 | 03 | | | | | | 560 | N | 00 | 01 | 12 | 03 |
| | 1.710.371.93 | 0120 | SW | GND-A | N | 00 | 01 | 11 | 04 | | | | | | 560 | N | 00 | 01 | 12 | 13 |
| | 1.710.371.93 | 0460 | GN | S-MPX | N | 00 | 01 | 11 | 06 | | | | | | 560 | N | 00 | 01 | 12 | 05 |
| | 1.710.371.93 | 0610 | GR | S-ON | N | 00 | 01 | 11 | 07 | | | | | | 280 | N | 00 | 01 | 06 | 11 |
| | 1.710.371.93 | 0520 | VI | S-STDBY | N | 00 | 01 | 11 | 08 | | | | | | 280 | N | 00 | 01 | 06 | 04 |

ANSCHLUSS VOM INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G --- | | | | --- A N Z A P F U N G --- | | | | ----- E N D E ----- | | | | BEM | | |
|------------|----------------|---------------|-------|---------|------|---------------------|------------------|--------|-------|---------------------------|--------|-----|------------------|---------------------|-----|------------------|--------|-----|----|----|
| | | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | | | |
| AS | GR | EL | PT | ANFANG | AS | GR | EL | PT | TOTAL | AS | GR | EL | PT | AS | GR | EL | PT | | | |
| | 1.710.371.93 | 0210 | BF | S-MDN | N | 00 | 01 | 12 | 01 | | | | | | 560 | N | 00 | 01 | 11 | 02 |
| | 1.710.371.93 | 0760 | WS | Y-MUTE1 | N | 00 | 01 | 12 | 02 | | | | | | 500 | N | 00 | 01 | 06 | 09 |
| | 1.710.371.93 | 0360 | GR | S-NR | N | 00 | 01 | 12 | 03 | | | | | | 560 | N | 00 | 01 | 11 | 03 |
| | 1.710.371.93 | 0580 | VI | Y-REC | N | 00 | 01 | 12 | 04 | | | | | | 500 | N | 00 | 01 | 06 | 07 |
| | 1.710.371.93 | 0460 | GN | S-MPX | N | 00 | 01 | 12 | 05 | | | | | | 560 | N | 00 | 01 | 11 | 06 |
| | 1.710.371.93 | 0200 | BR | Y-READY | N | 00 | 01 | 12 | 06 | | | | | | 500 | N | 00 | 01 | 06 | 03 |
| | 1.710.371.93 | 0350 | GB | Y-CAL | N | 00 | 01 | 12 | 07 | | | | | | 500 | N | 00 | 01 | 06 | 10 |
| | 1.710.371.93 | 0660 | GR | S-MET | N | 00 | 01 | 12 | 08 | | | | | | 500 | N | 00 | 01 | 06 | 12 |
| | 1.710.371.93 | 0740 | WS | S-EQ | N | 00 | 01 | 12 | 09 | | | | | | 500 | N | 00 | 01 | 06 | 13 |
| | 1.710.371.93 | 0450 | GN | Y-MUTE2 | N | 00 | 01 | 12 | 11 | | | | | | 500 | N | 00 | 01 | 06 | 08 |
| | 1.710.371.93 | 0110 | SW | GND-HS | N | 00 | 01 | 12 | 12 | | | | | | 500 | N | 00 | 01 | 06 | 01 |
| | 1.710.371.93 | 0120 | SW | GND-A | N | 00 | 01 | 12 | 13 | | | | | | 560 | N | 00 | 01 | 11 | 04 |
| | 1.710.371.93 | 0090 | SW | GND-D | N | 00 | 01 | 13 | 01 | | | | | | 350 | L | 00 | 01 | 30 | 03 |
| | 1.710.371.93 | 0720 | WS | S-2 | N | 00 | 01 | 13 | 04 | | | | | | 400 | L | 00 | 01 | 30 | 05 |
| | 1.710.371.93 | 0430 | GN | S-1 | N | 00 | 01 | 13 | 05 | | | | | | 420 | L | 00 | 01 | 30 | 04 |
| | 1.710.371.93 | 0560 | VI | S-EQS | N | | | | | | | | | | | | | | | |

SERVICE WIRING LIST MKII

ANSCHLUSS VOM INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | BEM | E N D E | | | | | |
|--------------|----------------|---------------|--------|----------------|------------------------|--------|------------------------|--------|------------------------|-----|---------|----|----|----|-------|----|
| | | | | | | | | | | | AS | GR | EL | PT | TOTAL | AS |
| 1.710.371.93 | 0030 | SW | GND-PH | N | 00 | 01 | 14 | 01 | | | 180 | D | 00 | 01 | 15 | 08 |
| 1.710.371.93 | 0030 | SW | GND-D | N | 00 | 01 | 14 | 03 | | | 180 | D | 00 | 01 | 15 | 14 |
| 1.710.371.93 | 0260 | DR | + 5V | N | 00 | 01 | 14 | 04 | | | 180 | D | 00 | 01 | 15 | 16 |
| 1.710.371.93 | 0470 | BL | -15V | N | 00 | 01 | 14 | 05 | | | 180 | D | 00 | 01 | 15 | 04 |
| 1.710.371.93 | 0030 | SW | GND-A | N | 00 | 01 | 14 | 06 | | | 180 | D | 00 | 01 | 15 | 07 |
| 1.710.371.93 | 0220 | RT | +15V | N | 00 | 01 | 14 | 07 | | | 180 | D | 00 | 01 | 15 | 11 |

ANSCHLUSS VOM POWER SUPPLY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | BEM | E N D E | | | | | |
|--------------|----------------|---------------|--------|----------------|------------------------|--------|------------------------|--------|------------------------|-----|---------|----|----|----|-------|----|
| | | | | | | | | | | | AS | GR | EL | PT | TOTAL | AS |
| 1.710.371.93 | 0530 | VI | +22V | D | 00 | 01 | 15 | 01 | | | 280 | N | 00 | 01 | 20 | 06 |
| 1.710.371.93 | 0490 | BL | -15V | D | 00 | 01 | 15 | 02 | | | 290 | N | 00 | 01 | 21 | 08 |
| 1.710.371.93 | 0480 | BL | -15V | D | 00 | 01 | 15 | 03 | | | 280 | N | 00 | 01 | 20 | 03 |
| 1.710.371.93 | 0470 | BL | -15V | D | 00 | 01 | 15 | 04 | | | 180 | N | 00 | 01 | 14 | 05 |
| 1.710.371.93 | 0060 | SW | GND-A | D | 00 | 01 | 15 | 05 | | | 290 | N | 00 | 01 | 21 | 11 |
| 1.710.371.93 | 0040 | SW | GND-A | D | 00 | 01 | 15 | 06 | | | 280 | N | 00 | 01 | 20 | 09 |
| 1.710.371.93 | 0030 | SW | GND-A | D | 00 | 01 | 15 | 07 | | | 180 | N | 00 | 01 | 14 | 06 |
| 1.710.371.93 | 0030 | SW | GND-PH | D | 00 | 01 | 15 | 08 | | | 180 | N | 00 | 01 | 14 | 01 |
| 1.710.371.93 | 0240 | RT | +15V | D | 00 | 01 | 15 | 09 | | | 290 | N | 00 | 01 | 21 | 09 |
| 1.710.371.93 | 0230 | RT | +15V | D | 00 | 01 | 15 | 10 | | | 280 | N | 00 | 01 | 20 | 05 |
| 1.710.371.93 | 0220 | RT | +15V | D | 00 | 01 | 15 | 11 | | | 180 | N | 00 | 01 | 14 | 07 |
| 1.710.371.93 | 0060 | SW | GND-D | D | 00 | 01 | 15 | 13 | | | 290 | N | 00 | 01 | 21 | 06 |
| 1.710.371.93 | 0030 | SW | GND-D | D | 00 | 01 | 15 | 14 | | | 180 | N | 00 | 01 | 14 | 03 |
| 1.710.371.93 | 0270 | DR | + 5V | D | 00 | 01 | 15 | 15 | | | 290 | N | 00 | 01 | 21 | 07 |
| 1.710.371.93 | 0260 | DR | + 5V | D | 00 | 01 | 15 | 16 | | | 180 | N | 00 | 01 | 14 | 04 |

ANSCHLUSS VOM POWER SUPPLY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | BEM | E N D E | | | | | |
|--------------|----------------|---------------|--------|----------------|------------------------|--------|------------------------|--------|------------------------|-----|---------|----|----|----|-------|----|
| | | | | | | | | | | | AS | GR | EL | PT | TOTAL | AS |
| 1.710.371.93 | 0250 | DR | + 5V | D | 00 | 01 | 16 | 01 | | | 140 | N | 00 | 01 | 07 | 06 |
| 1.710.371.93 | 0010 | SW | GND-D | D | 00 | 01 | 16 | 03 | | | 140 | N | 00 | 01 | 07 | 01 |
| 1.710.371.93 | 0010 | SW | GND-WM | D | 00 | 01 | 16 | 04 | | | 140 | N | 00 | 01 | 07 | 01 |
| 1.710.371.93 | 0590 | GR | + 10V | D | 00 | 01 | 16 | 05 | | | 140 | N | 00 | 01 | 07 | 10 |
| 1.710.371.93 | 0290 | GB | S-ON | D | 00 | 01 | 16 | 06 | | | 140 | N | 00 | 01 | 07 | 09 |
| 1.710.371.93 | 0500 | VI | VAC-1 | D | 00 | 01 | 16 | 07 | | | 140 | N | 00 | 01 | 07 | 08 |
| 1.710.371.93 | 0500 | VI | VAC-2 | D | 00 | 01 | 16 | 08 | | | 140 | N | 00 | 01 | 07 | 07 |
| 1.710.371.93 | 0370 | GN | -22V | D | 00 | 01 | 16 | 09 | | | 140 | N | 00 | 01 | 07 | 03 |
| 1.710.371.93 | 0130 | BR | +22V | D | 00 | 01 | 16 | 10 | | | 140 | N | 00 | 01 | 07 | 05 |

ANSCHLUSS VOM AUDIO INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | BEM | E N D E | | | | | |
|--------------|----------------|---------------|----------|----------------|------------------------|--------|------------------------|--------|------------------------|-----|---------|----|----|----|-------|----|
| | | | | | | | | | | | AS | GR | EL | PT | TOTAL | AS |
| 1.710.371.93 | 0140 | BR | Y-MIC-R | N | 00 | 01 | 19 | 01 | | | 170 | N | 00 | 01 | 20 | 10 |
| 1.710.371.93 | 0600 | GR | Y-MIC-L | N | 00 | 01 | 19 | 02 | | | 170 | N | 00 | 01 | 20 | 11 |
| 1.710.371.93 | 0300 | GB | Y-MUTE2 | N | 00 | 01 | 19 | 03 | | | 170 | N | 00 | 01 | 20 | 07 |
| 1.710.371.93 | 0380 | GN | Y-LINE-L | N | 00 | 01 | 19 | 04 | | | 170 | N | 00 | 01 | 20 | 01 |
| 1.710.371.93 | 0390 | GN | Y-LINE-L | N | 00 | 01 | 19 | 05 | | | 290 | N | 00 | 01 | 21 | 10 |
| 1.710.371.93 | 0670 | WS | Y-LINE-R | N | 00 | 01 | 19 | 06 | | | 170 | N | 00 | 01 | 20 | 02 |
| 1.710.371.93 | 0690 | WS | Y-LINE-R | N | 00 | 01 | 19 | 07 | | | 290 | N | 00 | 01 | 21 | 12 |
| 1.710.371.93 | 0020 | SW | GND-PH | N | 00 | 01 | 19 | 09 | | | 170 | N | 00 | 01 | 20 | 08 |

ANSCHLUSS VON MIC/PHONES AMPL.

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | LAENGE | TYP VERDRAHTUNGSORT | BEM | E N D E | | | | | |
|--------------|----------------|---------------|----------|----------------|------------------------|--------|------------------------|--------|------------------------|-----|---------|----|----|----|-------|----|
| | | | | | | | | | | | AS | GR | EL | PT | TOTAL | AS |
| 1.710.371.93 | 0380 | GN | Y-LINE-L | N | 00 | 01 | 20 | 01 | | | 170 | N | 00 | 01 | 19 | 04 |
| 1.710.371.93 | 0670 | WS | Y-LINE-R | N | 00 | 01 | 20 | 02 | | | 170 | N | 00 | 01 | 19 | 06 |
| 1.710.371.93 | 0480 | BL | -15V | N | 00 | 01 | 20 | 03 | | | 280 | D | 00 | 01 | 15 | 03 |
| 1.710.371.93 | 0230 | RT | +15V | N | 00 | 01 | 20 | 05 | | | 280 | D | 00 | 01 | 15 | 10 |
| 1.710.371.93 | 0530 | VI | +22V | N | 00 | 01 | 20 | 06 | | | 280 | D | 00 | 01 | 15 | 01 |
| 1.710.371.93 | 0300 | GB | Y-MUTE2 | N | 00 | 01 | 20 | 07 | | | 170 | N | 00 | 01 | 19 | 03 |
| 1.710.371.93 | 0020 | SW | GND-PH | N | 00 | 01 | 20 | 08 | | | 170 | N | 00 | 01 | 19 | 09 |
| 1.710.371.93 | 0040 | SW | GND-A | N | 00 | 01 | 20 | 09 | | | 280 | D | 00 | 01 | 15 | 06 |
| 1.710.371.93 | 0140 | BR | Y-MIC-R | N | 00 | 01 | 20 | 10 | | | 170 | N | 00 | 01 | 19 | 01 |
| 1.710.371.93 | 0600 | GR | Y-MIC-L | N | 00 | 01 | 20 | 11 | | | 170 | N | 00 | 01 | 19 | 02 |

SERVICE WIRING LIST MKII

ANSCHLUSS VOM PEAK METER

| MOD IDX | BAUTFIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G -- | | | | --- A N Z A P F U N G -- | | | | --- E N D E --- | | | | BEM | |
|--------------|----------------|---------------|-------|----------|------|--------------------|-----------------|--------|-----|--------------------------|--------|-----|-----------------|-----------------|----|----|----|-----|----|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | AS | GR | EL | PT | | |
| 1.710.371.93 | 0680 | WS | | DL-MPX | N | 00 | 01 | 21 | 01 | | | | | 280 | N | 00 | 01 | 13 | 09 |
| 1.710.371.93 | 0510 | VI | | DL-DOLBY | N | 00 | 01 | 21 | 02 | | | | | 280 | N | 00 | 01 | 13 | 10 |
| 1.710.371.93 | 0150 | BP | | DL-AUTO | N | 00 | 01 | 21 | 03 | | | | | 180 | L | 00 | 01 | 30 | 07 |
| 1.710.371.93 | 0310 | GB | | DL-POS | N | 00 | 01 | 21 | 04 | | | | | 280 | N | 00 | 01 | 13 | 11 |
| 1.710.371.93 | 0060 | SW | | GND-D | N | 00 | 01 | 21 | 06 | | | | | 290 | D | 00 | 01 | 15 | 13 |
| 1.710.371.93 | 0270 | OR | | + 5V | N | 00 | 01 | 21 | 07 | | | | | 290 | D | 00 | 01 | 15 | 15 |
| 1.710.371.93 | 0490 | RL | | -15V | N | 00 | 01 | 21 | 08 | | | | | 290 | D | 00 | 01 | 15 | 02 |
| 1.710.371.93 | 0240 | RT | | +15V | N | 00 | 01 | 21 | 09 | | | | | 290 | D | 00 | 01 | 15 | 09 |
| 1.710.371.93 | 0390 | GN | | Y-LINE-L | N | 00 | 01 | 21 | 10 | | | | | 290 | N | 00 | 01 | 19 | 05 |
| 1.710.371.93 | 0060 | SW | | GND-A | N | 00 | 01 | 21 | 11 | | | | | 290 | D | 00 | 01 | 15 | 05 |
| 1.710.371.93 | 0690 | WS | | Y-LINE-R | N | 00 | 01 | 21 | 12 | | | | | 290 | N | 00 | 01 | 19 | 07 |

ANSCHLUSS VOM TAPE SELECTER

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G -- | | | | --- A N Z A P F U N G -- | | | | --- E N D E --- | | | | BEM | |
|--------------|----------------|---------------|-------|---------|------|--------------------|-----------------|--------|-----|--------------------------|--------|-----|-----------------|-----------------|----|----|----|-----|----|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | AS | GR | EL | PT | | |
| 1.710.371.93 | 0560 | VI | | S-EQS | L | 00 | 01 | 30 | 02 | | | | | 435 | N | 00 | 01 | 13 | 06 |
| 1.710.371.93 | 0090 | SW | | GND-D | L | 00 | 01 | 30 | 03 | | | | | 350 | N | 00 | 01 | 13 | 01 |
| 1.710.371.93 | 0430 | GN | | S-1 | L | 00 | 01 | 30 | 04 | | | | | 420 | N | 00 | 01 | 13 | 05 |
| 1.710.371.93 | 0720 | WS | | S-2 | L | 00 | 01 | 30 | 05 | | | | | 400 | N | 00 | 01 | 13 | 04 |
| 1.710.371.93 | 0410 | GN | | S-AUTO | L | 00 | 01 | 30 | 06 | | | | | 350 | N | 00 | 01 | 13 | 07 |
| 1.710.371.93 | 0150 | BR | | DL-AUTO | L | 00 | 01 | 30 | 07 | | | | | 180 | N | 00 | 01 | 21 | 03 |

ANSCHLUSS VON PROGRAMMING KEYS

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- A N F A N G -- | | | | --- A N Z A P F U N G -- | | | | --- E N D E --- | | | | BEM | |
|--------------|----------------|---------------|-------|----------|------|--------------------|-----------------|--------|-----|--------------------------|--------|-----|-----------------|-----------------|----|----|----|-----|----|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | AS | GR | EL | PT | | |
| 1.710.371.93 | 0080 | SW | | GND-PRG | L | 00 | 01 | 31 | 01 | | | | | 330 | N | 00 | 01 | 01 | 17 |
| 1.710.371.93 | 0170 | BR | | S-SET | L | 00 | 01 | 31 | 02 | | | | | 330 | N | 00 | 01 | 01 | 11 |
| 1.710.371.93 | 0630 | GR | | S-START | L | 00 | 01 | 31 | 03 | | | | | 350 | N | 00 | 01 | 01 | 12 |
| 1.710.371.93 | 0710 | WS | | S-CSTOP | L | 00 | 01 | 31 | 04 | | | | | 365 | N | 00 | 01 | 01 | 13 |
| 1.710.371.93 | 0330 | GB | | S-CLEAR | L | 00 | 01 | 31 | 05 | | | | | 380 | N | 00 | 01 | 01 | 14 |
| 1.710.371.93 | 0420 | GN | | S-TIPLAY | L | 00 | 01 | 31 | 06 | | | | | 400 | N | 00 | 01 | 01 | 15 |
| 1.710.371.93 | 0550 | VI | | S-TIREC | L | 00 | 01 | 31 | 07 | | | | | 410 | N | 00 | 01 | 01 | 16 |
| 1.710.371.93 | 0180 | BR | | S-REN | L | 00 | 01 | 31 | 08 | | | | | 420 | N | 00 | 01 | 01 | 20 |

SERVICE WIRING LIST MKI

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL | NR. | POS/A. NR. | FARBE NR. | SIGNAL | NAME | --- A N F A N G --- | | | | --- A N Z A P F U N G --- | | | | --- E N D E --- | | | | BEM | | | |
|------------|--------------|------|---------------|--------------|--------|-------------|---------------------|----------------|----|----|---------------------------|--------|----------------|----|-----------------|--------|-------|----------------|-------------|----|----|--|
| | | | | | | | TYP | VÉDRÄHTUNGSORT | | | LAENGE | TYP | VÉDRÄHTUNGSORT | | | LAENGE | TYP | VÉDRÄHTUNGSORT | | | | |
| | | | | | | | | AS | GR | EL | PT | ANFANG | AS | GR | EL | PT | TOTAL | AS | GR | EL | PT | |
| | 1.710.371.93 | 0320 | GB | S-REC | N | 00 01 01 01 | | | | | | | | | | | 310 | N | 00 01 09 11 | | | |
| | 1.710.371.93 | 0400 | GN | S-STOP | N | 00 01 01 02 | | | | | | | | | | | 310 | N | 00 01 09 10 | | | |
| | 1.710.371.93 | 0540 | VI | S-PLAY | N | 00 01 01 03 | | | | | | | | | | | 310 | N | 00 01 09 09 | | | |
| | 1.710.371.93 | 0700 | WS | S-FORW | N | 00 01 01 04 | | | | | | | | | | | 310 | N | 00 01 09 06 | | | |
| | 1.710.371.93 | 0320 | GB | S-REW | N | 00 01 01 05 | | | | | | | | | | | 310 | N | 00 01 09 04 | | | |
| | 1.710.371.93 | 0540 | VI | S-PAUSE | N | 00 01 01 06 | | | | | | | | | | | 310 | N | 00 01 09 01 | | | |
| | 1.710.371.93 | 0620 | GR | S-ZERO | N | 00 01 01 07 | | | | | | | | | | | 310 | N | 00 01 09 08 | | | |
| | 1.710.371.93 | 0160 | BR | S-RUNUP | N | 00 01 01 08 | | | | | | | | | | | 310 | N | 00 01 09 05 | | | |
| | 1.710.371.93 | 0400 | GN | S-MODE | N | 00 01 01 10 | | | | | | | | | | | 310 | N | 00 01 09 03 | | | |
| | 1.710.371.93 | 0170 | BR | S-SET | N | 00 01 01 11 | | | | | | | | | | | 330 | L | 00 01 31 02 | | | |
| | 1.710.371.93 | 0630 | GR | S-START | N | 00 01 01 12 | | | | | | | | | | | 350 | L | 00 01 31 03 | | | |
| | 1.710.371.93 | 0710 | WS | S-CSTOP | N | 00 01 01 13 | | | | | | | | | | | 365 | L | 00 01 31 04 | | | |
| | 1.710.371.93 | 0330 | GB | S-CLEAR | N | 00 01 01 14 | | | | | | | | | | | 380 | L | 00 01 31 05 | | | |
| | 1.710.371.93 | 0420 | GN | S-TIPLAY | N | 00 01 01 15 | | | | | | | | | | | 400 | L | 00 01 31 06 | | | |
| | 1.710.371.93 | 0550 | VI | S-TIREC | N | 00 01 01 16 | | | | | | | | | | | 410 | L | 00 01 31 07 | | | |
| | 1.710.371.93 | 0080 | SW | GND-PRG | N | 00 01 01 17 | | | | | | | | | | | 330 | L | 00 01 31 01 | | | |
| | 1.710.371.93 | 0070 | SW | GND-KB | N | 00 01 01 18 | | | | | | | | | | | 310 | N | 00 01 09 07 | | | |
| | 1.710.371.93 | 0160 | BR | S-REN | N | 00 01 01 19 | | | | | | | | | | | 310 | N | 00 01 09 12 | | | |
| | 1.710.371.93 | 0180 | BR | S-REN | N | 00 01 01 20 | | | | | | | | | | | 420 | L | 00 01 31 08 | | | |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE NR. | SIGNAL NAME | I-- A N F A N G -- | | | | I-- A N Z A P F U N G -- | | | | E N D E ----- | | | | BEM | | | |
|------------|----------------|---------------|--------------|----------------|--------------------|------------------|--------|----|--------------------------|----|----|--------|---------------|------------------|--------|----|-----|----|----|----|
| | | | | | TYP | VERDRAHTUNGSSORT | LAENGE | AS | GR | EL | PT | ANFANG | TYP | VERDRAHTUNGSSORT | LAENGE | AS | GR | EL | PT | |
| 01) | 1.710.371.93 | 0570 | VI | VAC-1 | N | 00 | 01 | 02 | 01 | | | | | | 450 | D | 00 | 01 | 10 | 12 |
| | 1.710.371.93 | 0570 | VI | VAC-2 | N | 00 | 01 | 02 | 02 | | | | | | 450 | D | 00 | 01 | 10 | 11 |
| | 1.710.371.93 | 0280 | DR | + 5V | N | 00 | 01 | 02 | 03 | | | | | | 450 | D | 00 | 01 | 10 | 04 |
| | 1.710.371.93 | 0650 | GR | Y-TIMER | N | 00 | 01 | 02 | 05 | | | | | | 450 | D | 00 | 01 | 10 | 06 |
| | 1.710.371.93 | 0440 | GN | Y-AM | N | 00 | 01 | 02 | 06 | | | | | | 450 | D | 00 | 01 | 10 | 07 |
| | 1.710.371.93 | 0340 | GB | Y-PM | N | 00 | 01 | 02 | 07 | | | | | | 450 | D | 00 | 01 | 10 | 08 |
| | 1.710.371.93 | 0100 | SW | GND-DISP | N | 00 | 01 | 02 | 08 | | | | | | 450 | D | 00 | 01 | 10 | 09 |
| | 1.710.371.93 | 0730 | WS | DL-REC | N | 00 | 01 | 02 | 09 | | | | | | 450 | D | 00 | 01 | 10 | 05 |
| | 1.710.371.93 | 0440 | GN | Y-DATA | N | 00 | 01 | 02 | 10 | | | | | | 450 | D | 00 | 01 | 10 | 02 |
| | 1.710.371.93 | 0190 | BR | Y-CLOCK | N | 00 | 01 | 02 | 11 | | | | | | 450 | D | 00 | 01 | 10 | 01 |
| | 1.710.371.93 | 0650 | GR | Y-DLEN | N | 00 | 01 | 02 | 12 | | | | | | 450 | D | 00 | 01 | 10 | 03 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE NR. | SIGNAL NAME | --- A N F A N G --- | | | --- A N Z A P F U N G --- | | | --- E N D E --- | | | BEM | | |
|------------|----------------|---------------|--------------|----------------|---------------------|------------------------|--------------|---------------------------|------------------------|--------------|-----------------|------------------------|--------------|-----|----|----|
| | | | | | TYP AS | VERDRAHTUNGSSORT GR | LAENGE EL | TYP AS | VERDRAHTUNGSSORT GR | LAENGE EL | TYP AS | VERDRAHTUNGSSORT GR | LAENGE EL | | | |
| | 1.710.371.93 | 0110 | SW | GND-HS | N | 00 | 01 | 06 | 01 | | 500 | N | 00 | 01 | 12 | 12 |
| | 1.710.371.93 | 0050 | SW | GND-D | N | 00 | 01 | 06 | 02 | | 280 | N | 00 | 01 | 11 | 01 |
| | 1.710.371.93 | 0200 | BR | Y-READY | N | 00 | 01 | 06 | 03 | | 500 | N | 00 | 01 | 12 | 06 |
| | 1.710.371.93 | 0520 | VI | S-STDBY | N | 00 | 01 | 06 | 04 | | 280 | N | 00 | 01 | 11 | 08 |
| | 1.710.371.93 | 0580 | VI | Y-REC | N | 00 | 01 | 06 | 07 | | 500 | N | 00 | 01 | 12 | 04 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE NR. | SIGNAL | NAME | -- A N F A N G -- | | | --- A N Z A P F U N G -- | | | ----- E N D E ----- | | | BEM | | | | |
|--------------|----------------|---------------|--------------|---------|------|-------------------|------------------|--------|--------------------------|------------------|--------|---------------------|------------------|-----|-----|----|----|----|----|
| | | | | | | TYP | VERDRAHTUNGSSORT | LAENGE | TYP | VERDRAHTUNGSSORT | LAENGE | TYP | VERDRAHTUNGSSORT | AS | GR | EL | PT | | |
| 1.710.371.93 | 0450 | GN | | Y-MUTE2 | | N | 00 | 01 | 06 | 08 | | | | 500 | N | 00 | 01 | 12 | 11 |
| 1.710.371.93 | 0740 | WS | | Y-MUTE1 | | N | 00 | 01 | 06 | 09 | | | | 500 | N | 00 | 01 | 12 | 02 |
| 1.710.371.93 | 0350 | GB | | Y-CAL | | N | 00 | 01 | 06 | 10 | | | | 500 | N | 00 | 01 | 12 | 07 |
| 1.710.371.93 | 0610 | GR | | S-ON | | N | 00 | 01 | 06 | 11 | | | | 280 | N | 00 | 01 | 11 | 07 |
| 1.710.371.93 | 0660 | GR | | S-MET | | N | 00 | 01 | 06 | 12 | | | | 500 | N | 00 | 01 | 12 | 08 |
| 1.710.371.93 | 0740 | WS | | S-EQ | | N | 00 | 01 | 06 | 13 | | | | 500 | N | 00 | 01 | 12 | 09 |

ANSCHLUSS VOM MICROPROCESSOR

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE NR. | SIGNAL | NAME | A N F A N G | | | | A N Z A P F U N G | | | | E N D E | | | | BEM |
|--------------|----------------|---------------|--------------|--------|-------------|-------------|------------------|--------|-----|-------------------|--------|-----|------------------|---------|----|-------|-------|-----|
| | | | | | | TYP | VERDRAHTUNGSSORT | LAENGE | TYP | VERDRAHTUNGSSORT | LAENGE | TYP | VERDRAHTUNGSSORT | AS | GR | EL | PT | |
| 1.710.371.93 | 0010 | SW | GND-WM | N | 00 01 07 01 | | | | | | | | | 140 | D | 00 01 | 16 04 | |
| 1.710.371.93 | 0010 | SW | GND-D | N | 00 01 07 02 | | | | | | | | | 140 | D | 00 01 | 16 03 | |
| 1.710.371.93 | 0370 | GN | -22V | N | 00 01 07 03 | | | | | | | | | 140 | D | 00 01 | 16 09 | |
| 1.710.371.93 | 0130 | BR | +22V | N | 00 01 07 05 | | | | | | | | | 140 | D | 00 01 | 16 10 | |
| 1.710.371.93 | 0250 | DR | + 5V | N | 00 01 07 06 | | | | | | | | | 140 | D | 00 01 | 16 01 | |
| 1.710.371.93 | 0500 | VI | VAC-2 | N | 00 01 07 07 | | | | | | | | | 140 | D | 00 01 | 16 08 | |
| 1.710.371.93 | 0500 | VI | VAC-1 | N | 00 01 07 08 | | | | | | | | | 140 | D | 00 01 | 16 07 | |
| 1.710.371.93 | 0290 | GB | S-ON | N | 00 01 07 09 | | | | | | | | | 140 | D | 00 01 | 16 06 | |
| 1.710.371.93 | 0590 | GR | + 10V | N | 00 01 07 10 | | | | | | | | | 140 | D | 00 01 | 16 05 | |

SERVICE WIRING LIST MKI

ANSCHLUSS VON KEYBOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | |
|------------|----------------|---------------|-------|----------------|---|------------------|--------|--------|------------------|--------|-----|------------------|----|
| | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | |
| ANFANG | | | | ANFANG | | | | ANFANG | | AS | GR | EL | PT |
| | 1.710.371.93 | 0540 | VI | S-PAUSE | N | 00 | 01 | 09 | 01 | | | | |
| | 1.710.371.93 | 0400 | GN | S-MODE | N | 00 | 01 | 09 | 03 | | | | |
| | 1.710.371.93 | 0320 | GB | S-REW | N | 00 | 01 | 09 | 04 | | | | |
| | 1.710.371.93 | 0160 | BR | S-RUNUP | N | 00 | 01 | 09 | 05 | | | | |
| | 1.710.371.93 | 0700 | WS | S-FORM | N | 00 | 01 | 09 | 06 | | | | |
| | 1.710.371.93 | 0070 | SW | GND-KB | N | 00 | 01 | 09 | 07 | | | | |
| | 1.710.371.93 | 0620 | GR | S-ZERO | N | 00 | 01 | 09 | 08 | | | | |
| | 1.710.371.93 | 0540 | VI | S-PLAY | N | 00 | 01 | 09 | 09 | | | | |
| | 1.710.371.93 | 0400 | GN | S-STOP | N | 00 | 01 | 09 | 10 | | | | |
| | 1.710.371.93 | 0320 | GB | S-REC | N | 00 | 01 | 09 | 11 | | | | |
| | 1.710.371.93 | 0160 | BR | S-REN | N | 00 | 01 | 09 | 12 | | | | |

ANSCHLUSS VDM COUNTER DISPLAY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | |
|------------|----------------|---------------|-------|----------------|---|------------------|--------|--------|------------------|--------|-----|------------------|----|
| | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | |
| ANFANG | | | | ANFANG | | | | ANFANG | | AS | GR | EL | PT |
| | 1.710.371.93 | 0190 | BR | Y-CLOCK | D | 00 | 01 | 10 | 01 | | | | |
| | 1.710.371.93 | 0440 | GN | Y-DATA | D | 00 | 01 | 10 | 02 | | | | |
| | 1.710.371.93 | 0650 | GR | Y-DLEN | D | 00 | 01 | 10 | 03 | | | | |
| | 1.710.371.93 | 0280 | DR | + 5V | D | 00 | 01 | 10 | 04 | | | | |
| 01) | 1.710.371.93 | 0730 | WS | DL-REC | D | 00 | 01 | 10 | 05 | | | | |
| 01) | 1.710.371.93 | 0650 | GR | Y-TIMER | D | 00 | 01 | 10 | 06 | | | | |
| 01) | 1.710.371.93 | 0440 | GN | Y-AM | D | 00 | 01 | 10 | 07 | | | | |
| 01) | 1.710.371.93 | 0340 | GB | Y-PM | D | 00 | 01 | 10 | 08 | | | | |
| | 1.710.371.93 | 0100 | SW | GND-DISP | D | 00 | 01 | 10 | 09 | | | | |
| | 1.710.371.93 | 0570 | VI | VAC-2 | D | 00 | 01 | 10 | 11 | | | | |
| | 1.710.371.93 | 0570 | VI | VAC-1 | D | 00 | 01 | 10 | 12 | | | | |

ANSCHLUSS VON DEN TOGGLE SWITCHES

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | |
|------------|----------------|---------------|-------|----------------|---|------------------|--------|--------|------------------|--------|-----|------------------|----|
| | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | |
| ANFANG | | | | ANFANG | | | | ANFANG | | AS | GR | EL | PT |
| | 1.710.371.93 | 0050 | SW | GND-D | N | 00 | 01 | 11 | 01 | | | | |
| | 1.710.371.93 | 0210 | BR | S-MON | N | 00 | 01 | 11 | 02 | | | | |
| | 1.710.371.93 | 0360 | GB | S-NR | N | 00 | 01 | 11 | 03 | | | | |
| | 1.710.371.93 | 0120 | SW | GND-A | N | 00 | 01 | 11 | 04 | | | | |
| | 1.710.371.93 | 0460 | GN | S-MPX | N | 00 | 01 | 11 | 06 | | | | |
| | 1.710.371.93 | 0610 | GR | S-ON | N | 00 | 01 | 11 | 07 | | | | |
| | 1.710.371.93 | 0520 | VI | S-STDBY | N | 00 | 01 | 11 | 08 | | | | |

ANSCHLUSS VOM INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | |
|------------|----------------|---------------|-------|----------------|---|------------------|--------|--------|------------------|--------|-----|------------------|----|
| | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | |
| ANFANG | | | | ANFANG | | | | ANFANG | | AS | GR | EL | PT |
| | 1.710.371.93 | 0210 | BR | S-MON | N | 00 | 01 | 12 | 01 | | | | |
| | 1.710.371.93 | 0740 | WS | Y-MUTE1 | N | 00 | 01 | 12 | 02 | | | | |
| | 1.710.371.93 | 0360 | GB | S-NR | N | 00 | 01 | 12 | 03 | | | | |
| | 1.710.371.93 | 0580 | VI | Y-REC | N | 00 | 01 | 12 | 04 | | | | |
| | 1.710.371.93 | 0460 | GN | S-MPX | N | 00 | 01 | 12 | 05 | | | | |
| | 1.710.371.93 | 0200 | BR | Y-READY | N | 00 | 01 | 12 | 06 | | | | |
| | 1.710.371.93 | 0350 | GB | Y-CAL | N | 00 | 01 | 12 | 07 | | | | |
| | 1.710.371.93 | 0660 | GR | S-MET | N | 00 | 01 | 12 | 08 | | | | |
| | 1.710.371.93 | 0740 | WS | S-EQ | N | 00 | 01 | 12 | 09 | | | | |
| | 1.710.371.93 | 0450 | GN | Y-MUTE2 | N | 00 | 01 | 12 | 11 | | | | |
| | 1.710.371.93 | 0110 | SW | GND-HS | N | 00 | 01 | 12 | 12 | | | | |
| | 1.710.371.93 | 0120 | SW | GND-A | N | 00 | 01 | 12 | 13 | | | | |

ANSCHLUSS VOM AUDIO INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | --- A N F A N G -- --- A N Z A P F U N G -- ----- E N D E ----- | | | | | | BEM | | |
|------------|----------------|---------------|-------|----------------|---|------------------|--------|--------|------------------|--------|-----|------------------|----|
| | | | | | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | LAENGE | TYP | VERDRAHTUNGSPORT | |
| ANFANG | | | | ANFANG | | | | ANFANG | | AS | GR | EL | PT |
| | 1.710.371.93 | 0090 | SW | GND-D | N | 00 | 01 | 13 | 01 | | | | |
| | 1.710.371.93 | 0720 | WS | S-2 | N | 00 | 01 | 13 | 04 | | | | |
| | 1.710.371.93 | 0430 | GN | S-1 | N | 00 | 01 | 13 | 05 | | | | |
| | 1.710.371.93 | 0560 | VI | S-EQS | N | 00 | 01 | 13 | 06 | | | | |
| | 1.710.371.93 | 0410 | GN | S-AUTO | N | 00 | 01 | 13 | 07 | | | | |
| | 1.710.371.93 | 0680 | WS | DL-MPX | N | 00 | 01 | 13 | 09 | | | | |
| | 1.710.371.93 | 0510 | VI | DL-DOLBY | N | 00 | 01 | 13 | 10 | | | | |
| | 1.710.371.93 | 0310 | GB | DL-POS | N | 00 | 01 | 13 | 11 | | | | |

SERVICE WIRING LIST MKI

ANSCHLUSS VOM INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP AS | VERDRAHTUNGSORT GR | LAENGE EL | TYP PT | VERDRAHTUNGSORT ANFANG | LAENGE AS | TYP GR | VERDRAHTUNGSORT EL | LAENGE PT | TYP TOTAL | E N D E | | | | BEM | | |
|--------------|----------------|---------------|--------|----------------|-----------|-----------------------|--------------|-----------|---------------------------|--------------|-----------|-----------------------|--------------|--------------|---------|----|----|----|-----|----|--|
| | | | | | | | | | | | | | | | AS | GR | EL | PT | | | |
| 1.710.371.93 | 0030 | SW | GND-PH | N | 00 | 01 | 14 | 01 | | | | | | | 180 | D | 00 | 01 | 15 | 08 | |
| 1.710.371.93 | 0030 | SW | GND-D | N | 00 | 01 | 14 | 03 | | | | | | | 180 | D | 00 | 01 | 15 | 14 | |
| 1.710.371.93 | 0260 | DR | + 5V | N | 00 | 01 | 14 | 04 | | | | | | | 180 | D | 00 | 01 | 15 | 16 | |
| 1.710.371.93 | 0470 | BL | -15V | N | 00 | 01 | 14 | 05 | | | | | | | 180 | D | 00 | 01 | 15 | 04 | |
| 1.710.371.93 | 0030 | SW | GND-A | N | 00 | 01 | 14 | 06 | | | | | | | 180 | D | 00 | 01 | 15 | 07 | |
| 1.710.371.93 | 0220 | RT | +15V | H | 00 | 01 | 14 | 07 | | | | | | | 180 | D | 00 | 01 | 15 | 11 | |

ANSCHLUSS VOM POWER SUPPLY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP AS | VERDRAHTUNGSORT GR | LAENGE EL | TYP PT | VERDRAHTUNGSORT ANFANG | LAENGE AS | TYP GR | VERDRAHTUNGSORT EL | LAENGE PT | TYP TOTAL | E N D E | | | | BEM | | |
|--------------|----------------|---------------|--------|----------------|-----------|-----------------------|--------------|-----------|---------------------------|--------------|-----------|-----------------------|--------------|--------------|---------|----|----|----|-----|----|--|
| | | | | | | | | | | | | | | | AS | GR | EL | PT | | | |
| 1.710.371.93 | 0530 | VI | +22V | D | 00 | 01 | 15 | 01 | | | | | | | 280 | N | 00 | 01 | 20 | 06 | |
| 1.710.371.93 | 0490 | BL | -15V | D | 00 | 01 | 15 | 02 | | | | | | | 290 | N | 00 | 01 | 21 | 08 | |
| 1.710.371.93 | 0480 | BL | -15V | H | 00 | 01 | 15 | 03 | | | | | | | 280 | N | 00 | 01 | 20 | 03 | |
| 1.710.371.93 | 0470 | BL | -15V | D | 00 | 01 | 15 | 04 | | | | | | | 180 | N | 00 | 01 | 14 | 05 | |
| 1.710.371.93 | 0060 | SW | GND-A | D | 00 | 01 | 15 | 05 | | | | | | | 290 | N | 00 | 01 | 21 | 11 | |
| 1.710.371.93 | 0040 | SW | GND-A | D | 00 | 01 | 15 | 06 | | | | | | | 280 | N | 00 | 01 | 20 | 09 | |
| 1.710.371.93 | 0030 | SW | GND-A | D | 00 | 01 | 15 | 07 | | | | | | | 180 | N | 00 | 01 | 14 | 06 | |
| 1.710.371.93 | 0030 | SW | GND-PH | D | 00 | 01 | 15 | 08 | | | | | | | 290 | N | 00 | 01 | 21 | 09 | |
| 1.710.371.93 | 0240 | RT | +15V | D | 00 | 01 | 15 | 09 | | | | | | | 280 | N | 00 | 01 | 20 | 05 | |
| 1.710.371.93 | 0230 | RT | +15V | D | 00 | 01 | 15 | 10 | | | | | | | 180 | N | 00 | 01 | 14 | 07 | |
| 1.710.371.93 | 0220 | RT | +15V | D | 00 | 01 | 15 | 11 | | | | | | | 290 | N | 00 | 01 | 21 | 06 | |
| 1.710.371.93 | 0060 | SW | GND-D | D | 00 | 01 | 15 | 13 | | | | | | | 180 | N | 00 | 01 | 14 | 03 | |
| 1.710.371.93 | 0030 | SW | GND-D | D | 00 | 01 | 15 | 14 | | | | | | | 290 | N | 00 | 01 | 21 | 07 | |
| 1.710.371.93 | 0270 | DR | + 5V | D | 00 | 01 | 15 | 15 | | | | | | | 180 | N | 00 | 01 | 14 | 04 | |
| 1.710.371.93 | 0260 | DR | + 5V | D | 00 | 01 | 15 | 16 | | | | | | | 180 | N | 00 | 01 | 20 | 05 | |

ANSCHLUSS VOM POWER SUPPLY

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP AS | VERDRAHTUNGSORT GR | LAENGE EL | TYP PT | VERDRAHTUNGSORT ANFANG | LAENGE AS | TYP GR | VERDRAHTUNGSORT EL | LAENGE PT | TYP TOTAL | E N D E | | | | BEM | | |
|--------------|----------------|---------------|--------|----------------|-----------|-----------------------|--------------|-----------|---------------------------|--------------|-----------|-----------------------|--------------|--------------|---------|----|----|----|-----|----|--|
| | | | | | | | | | | | | | | | AS | GR | EL | PT | | | |
| 1.710.371.93 | 0250 | OR | + 5V | D | 00 | 01 | 16 | 01 | | | | | | | 140 | N | 00 | 01 | 07 | 06 | |
| 1.710.371.93 | 0010 | SW | GND-D | D | 00 | 01 | 16 | 03 | | | | | | | 140 | N | 00 | 01 | 07 | 02 | |
| 1.710.371.93 | 0010 | SW | GND-WM | D | 00 | 01 | 16 | 04 | | | | | | | 140 | N | 00 | 01 | 07 | 01 | |
| 1.710.371.93 | 0590 | GR | + 10V | D | 00 | 01 | 16 | 05 | | | | | | | 140 | N | 00 | 01 | 07 | 10 | |
| 1.710.371.93 | 0290 | GB | S-ON | H | 00 | 01 | 16 | 06 | | | | | | | 140 | N | 00 | 01 | 07 | 09 | |
| 1.710.371.93 | 0500 | VI | VAC-1 | D | 00 | 01 | 16 | 07 | | | | | | | 140 | N | 00 | 01 | 07 | 08 | |
| 1.710.371.93 | 0500 | VI | VAC-2 | D | 00 | 01 | 16 | 08 | | | | | | | 140 | N | 00 | 01 | 07 | 07 | |
| 1.710.371.93 | 0370 | GN | -22V | D | 00 | 01 | 16 | 09 | | | | | | | 140 | N | 00 | 01 | 07 | 03 | |
| 1.710.371.93 | 0130 | BR | +22V | D | 00 | 01 | 16 | 10 | | | | | | | 140 | N | 00 | 01 | 07 | 05 | |

ANSCHLUSS VOM AUDIO INTERCONNECTION BOARD

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL NAME | TYP AS | VERDRAHTUNGSORT GR | LAENGE EL | TYP PT | VERDRAHTUNGSORT ANFANG | LAENGE AS | TYP GR | VERDRAHTUNGSORT EL | LAENGE PT | TYP TOTAL | E N D E | | | | BEM | | |
|--------------|----------------|---------------|----------|----------------|-----------|-----------------------|--------------|-----------|---------------------------|--------------|-----------|-----------------------|--------------|--------------|---------|----|----|----|-----|----|--|
| | | | | | | | | | | | | | | | AS | GR | EL | PT | | | |
| 1.710.371.93 | 0140 | BR | Y-MIC-R | N | 00 | 01 | 19 | 01 | | | | | | | 170 | N | 00 | 01 | 20 | 10 | |
| 1.710.371.93 | 0600 | GR | Y-MIC-L | N | 00 | 01 | 19 | 02 | | | | | | | 170 | N | 00 | 01 | 20 | 11 | |
| 1.710.371.93 | 0300 | GB | Y-MUTE2 | N | 00 | 01 | 19 | 03 | | | | | | | 170 | N | 00 | 01 | 20 | 01 | |
| 1.710.371.93 | 0380 | GN | Y-LINE-L | N | 00 | 01 | 19 | 04 | | | | | | | 170 | N | 00 | 01 | 20 | 01 | |
| 1.710.371.93 | 0390 | GN | Y-LINE-L | N | 00 | 01 | 19 | 05 | | | | | | | 290 | N | 00 | 01 | 21 | 10 | |
| 1.710.371.93 | 0670 | WS | Y-LINE-R | N | 00 | 01 | 19 | 06 | | | | | | | 170 | N | 00 | 01 | 20 | 02 | |
| 1.710.371.93 | 0690 | WS | Y-LINE-R | N | 00 | 01 | 19 | 07 | | | | | | | 290 | N | 00 | 01 | 21 | 12 | |
| 1.710.371.93 | 0020 | SW | GND-PH | N | 00 | 01 | 20 | 08 | | | | | | | 170 | N | 00 | 01 | 20 | 08 | |
| 1.710.371.93 | 0040 | SW | GND-A | N | 00 | 01 | 20 | 09 | | | | | | | 280 | D | 00 | 01 | 15 | 06 | |
| 1.710.371.93 | 0140 | BR | Y-MIC-R | N | 00 | 01 | 20 | 10 | | | | | | | 170 | N | 00 | 01 | 19 | 01 | |
| 1.710.371.93 | 0600 | GR | Y-MIC-L | N | 00 | 01 | 20 | 11 | | | | | | | 170 | N | 00 | 01 | 19 | 02 | |

SERVICE WIRING LIST MKI

ANSCHLUSS VOM PEAK METER

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- ANFANG --- | | | | --- ANZAPFUNG --- | | | | --- ENDE --- | | | | BEM | |
|--------------|----------------|---------------|-------|----------|------|----------------|-----------------|--------|-----|-------------------|--------|-----|-----------------|--------------|-----|-----------------|--------|-----|-------|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | | |
| 1.710.371.93 | 0680 | WS | | DL-MPX | N | 00 | 01 | 21 | 01 | | | | | | 280 | N | 00 | 01 | 13 09 |
| 1.710.371.93 | 0510 | VI | | DL-DOLBY | N | 00 | 01 | 21 | 02 | | | | | | 280 | N | 00 | 01 | 13 10 |
| 1.710.371.93 | 0150 | BR | | DL-AUTO | N | 00 | 01 | 21 | 03 | | | | | | 180 | L | 00 | 01 | 30 07 |
| 1.710.371.93 | 0310 | GB | | DL-POS | N | 00 | 01 | 21 | 04 | | | | | | 280 | N | 00 | 01 | 13 11 |
| 1.710.371.93 | 0060 | SW | | GND-D | N | 00 | 01 | 21 | 06 | | | | | | 290 | D | 00 | 01 | 15 13 |
| 1.710.371.93 | 0270 | DR | | + 5V | N | 00 | 01 | 21 | 07 | | | | | | 290 | D | 00 | 01 | 15 15 |
| 1.710.371.93 | 0490 | BL | | -15V | N | 00 | 01 | 21 | 08 | | | | | | 290 | D | 00 | 01 | 15 02 |
| 1.710.371.93 | 0240 | RT | | +15V | N | 00 | 01 | 21 | 09 | | | | | | 290 | O | 00 | 01 | 15 09 |
| 1.710.371.93 | 0390 | GN | | Y-LINE-L | N | 00 | 01 | 21 | 10 | | | | | | 290 | N | 00 | 01 | 19 05 |
| 1.710.371.93 | 0060 | SW | | GND-A | N | 00 | 01 | 21 | 11 | | | | | | 290 | D | 00 | 01 | 15 05 |
| 1.710.371.93 | 0690 | WS | | Y-LINE-R | N | 00 | 01 | 21 | 12 | | | | | | 290 | N | 00 | 01 | 19 07 |

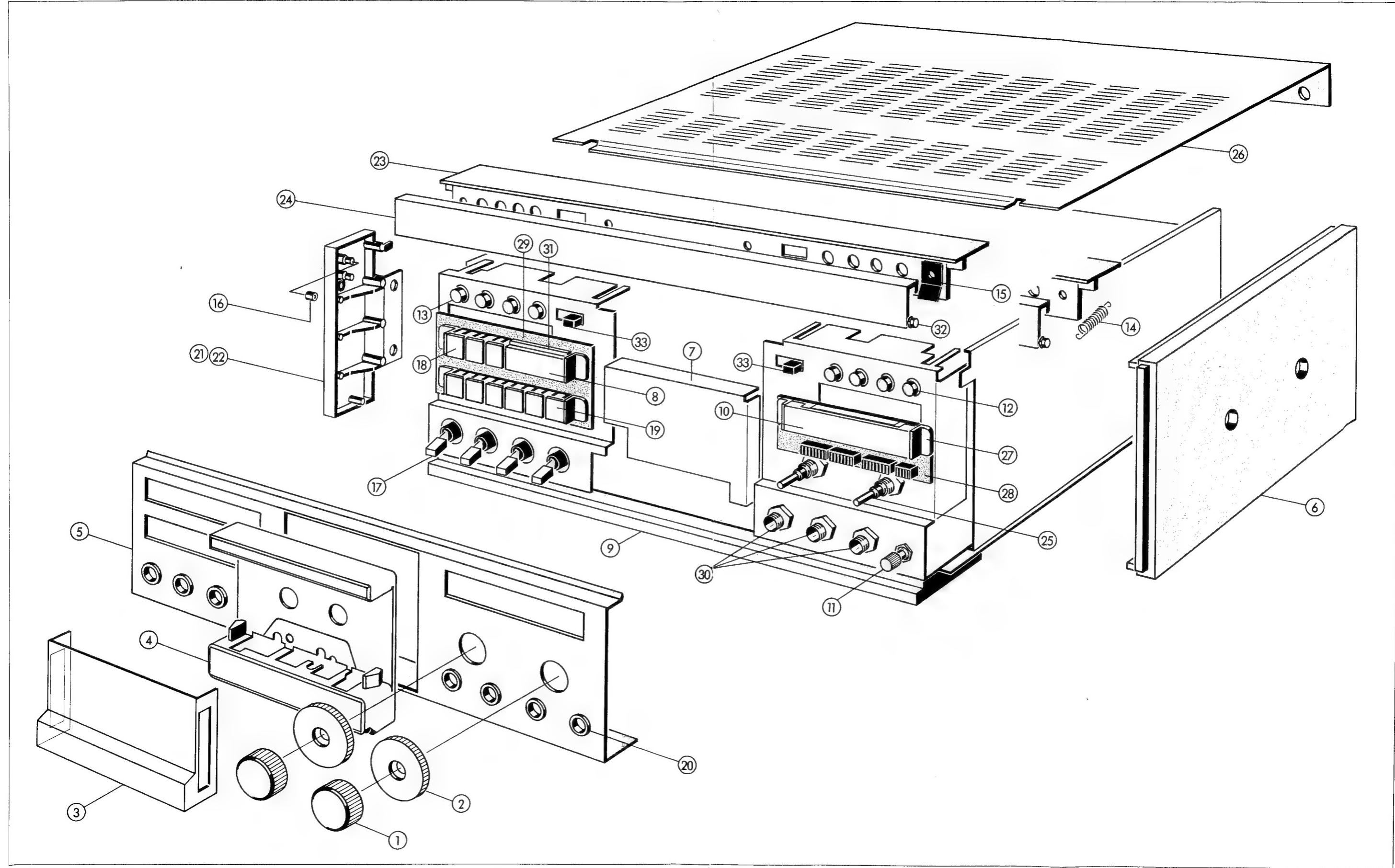
ANSCHLUSS VOM TAPE SELECTER

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- ANFANG --- | | | | --- ANZAPFUNG --- | | | | --- ENDE --- | | | | BEM | |
|--------------|----------------|---------------|-------|---------|------|----------------|-----------------|--------|-----|-------------------|--------|-----|-----------------|--------------|-----|-----------------|--------|-----|-------|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | | |
| 1.710.371.93 | 0560 | VI | | S-EQS | L | 00 | 01 | 30 | 02 | | | | | | 435 | N | 00 | 01 | 13 06 |
| 1.710.371.93 | 0090 | SW | | GND-D | L | 00 | 01 | 30 | 03 | | | | | | 350 | N | 00 | 01 | 13 01 |
| 1.710.371.93 | 0430 | GN | | S-1 | L | 00 | 01 | 30 | 04 | | | | | | 420 | N | 00 | 01 | 13 05 |
| 1.710.371.93 | 0720 | WS | | S-2 | L | 00 | 01 | 30 | 05 | | | | | | 400 | M | 00 | 01 | 13 04 |
| 1.710.371.93 | 0410 | GN | | S-AUTO | L | 00 | 01 | 30 | 06 | | | | | | 350 | N | 00 | 01 | 13 07 |
| 1.710.371.93 | 0150 | BR | | DL-AUTO | L | 00 | 01 | 30 | 07 | | | | | | 180 | N | 00 | 01 | 21 03 |

ANSCHLUSS VON PROGRAMMING KEYS

| MOD IDX | BAUTEIL NR. | POS/A. NR. | FARBE | SIGNAL | NAME | --- ANFANG --- | | | | --- ANZAPFUNG --- | | | | --- ENDE --- | | | | BEM | |
|--------------|----------------|---------------|-------|---------|------|----------------|-----------------|--------|-----|-------------------|--------|-----|-----------------|--------------|-----|-----------------|--------|-----|-------|
| | | | | | | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | TYP | VERDRAHTUNGSORT | LAENGE | | |
| 1.710.371.93 | 0080 | SW | | GND-PRG | L | 00 | 01 | 31 | 01 | | | | | | 330 | N | 00 | 01 | 01 17 |
| 1.710.371.93 | 0170 | BR | | S-SET | L | 00 | 01 | 31 | 02 | | | | | | 330 | N | 00 | 01 | 01 11 |
| 1.710.371.93 | 0630 | GR | | S-START | L | 00 | 01 | 31 | 03 | | | | | | 350 | N | 00 | 01 | 01 12 |
| 1.710.371.93 | 0710 | WS | | S-CSTOP | L | 00 | 01 | 31 | 04 | | | | | | 365 | N | 00 | 01 | 01 13 |
| 1.710.371.93 | 0330 | GB | | S-CLEAR | L | 00 | 01 | 31 | 05 | | | | | | 380 | N | 00 | 01 | 01 14 |
| 1.710.371.93 | 0420 | GN | | S-TPLAY | L | 00 | 01 | 31 | 06 | | | | | | 400 | N | 00 | 01 | 01 15 |
| 1.710.371.93 | 0550 | VI | | S-TIREC | L | 00 | 01 | 31 | 07 | | | | | | 410 | N | 00 | 01 | 01 16 |
| 1.710.371.93 | 0180 | BR | | S-REN | L | 00 | 01 | 31 | 08 | | | | | | 420 | N | 00 | 01 | 01 20 |

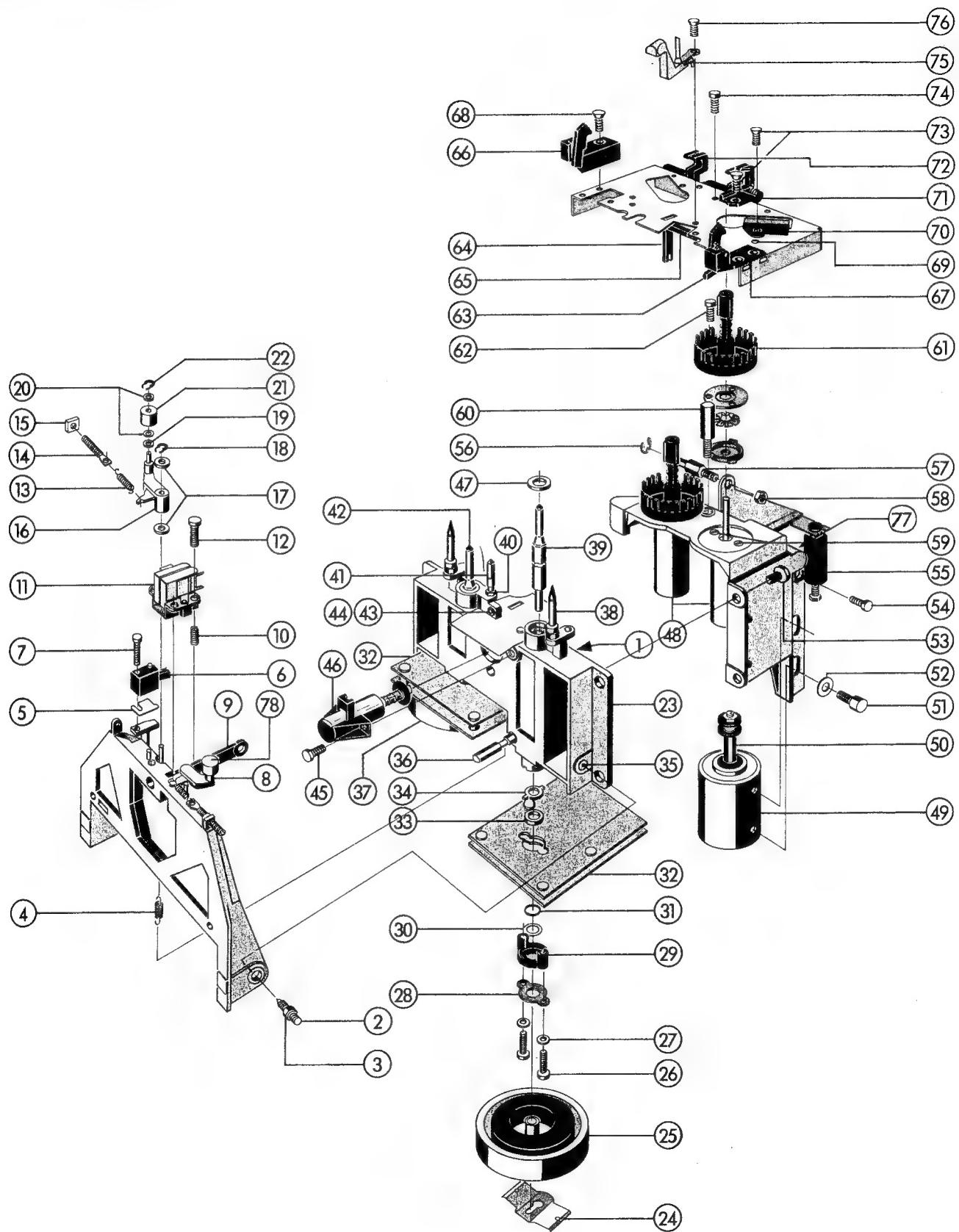
OPERATING SECTION



OPERATING SECTION

| INDEX | QTY | ORDER NUMBER | | PART NAME |
|----------|-----|--------------|--|---------------------------------|
| 01 | 2 | 1.177.100.11 | | Knob |
| 02 | 2 | 1.177.100.12 | | Washer |
| 03 | 1 | 1.710.010.11 | | Cassette dust cover |
| 04 | 1 | 1.710.010.12 | | Tape transport cover |
| 05 | 1 | 1.710.390.00 | | Operating panel MKI |
| | 1 | 1.710.391.00 | | Operating panel MKII |
| 06 | 1 | 1.166.010.09 | | Side part, left, right |
| 07 | 1 | 1.710.119.00 | | Cassette tape transport, compl. |
| 08 | 1 | 1.710.300.01 | | Window, left |
| to above | 1 | 1.710.300.02 | | Filter, red, MKI |
| | 1 | 1.710.300.03 | | Filter, red, MKII |
| 09 | 1 | 1.068.711.00 | | Toe rail, compl. |
| 10 | 1 | 1.710.340.01 | | Window, right up to No. 7700 |
| | 1 | 1.710.340.04 | | Window, right, from No. 7701 |
| 11 | 1 | 1.710.350.01 | | Volume potentiometer |
| 12 | 6 | 1.710.010.13 | | Push button, grey |
| 13 | 2 | 1.710.010.14 | | Push button, red |
| 14 | 2 | 1.010.102.37 | | Tension spring, MKI |
| 15 | 2 | 1.710.010.17 | | Flat spring, MKII |
| 16 | 2 | 1.710.010.18 | | Rubber ring, MKII |
| 17 | 4 | 1.011.120.00 | | Toggle switch |
| 18 | 8 | 1.011.201.05 | | Push button, grey |
| 19 | 1 | 1.011.201.06 | | Push button, red |
| 20 | 8 | 1.068.700.14 | | Decor rim |
| 21 | 1 | 1.710.010.08 | | Side part, left |
| 22 | 1 | 1.710.010.09 | | Side part, right |
| 23 | 1 | 1.710.010.06 | | Cover strip, MKI |
| to above | 1 | 1.710.010.07 | | Designate sticker, MKI |
| | 1 | 1.710.010.15 | | Cover strip, MKII |
| to above | 1 | 1.710.010.16 | | Designate sticker, MKII |
| 24 | 1 | 1.710.420.01 | | Front cover flap, MKI |
| | 1 | 1.710.421.01 | | Front cover flap, MKII |
| 25 | 2 | 1.710.345.01 | | Double potentiometer |
| 26 | 1 | 1.710.010.01 | | Cover plate |

CASSETTE TAPE TRANSPORT



CASSETTE TAPE TRANSPORT

| INDEX | QTY | ORDER NUMBER | PART NAME |
|----------|--------|----------------------------------|-----------------------------------|
| | | 1.710.119.00 | Cassette tape transport, complete |
| to above | 4 | 1.710.120.11 | Screw |
| 01 | 1 | 1.710.120.12 | Latch stop |
| to above | 1 | 21.26.0354 | Screw |
| 02 | 2 | 1.020.001.05 | Set screw |
| 03 | 2 | 1.736.226.04 | Slotted nut |
| 04 | 1 | 1.010.103.37 | Tension spring |
| 05 | | 1.710.120.14/17 | Erase head spacer |
| 06 | 1 | 1.116.711.01 | Erase head |
| 07 | 1 | 21.01.0283 | Screw M2.5 x 14 |
| 08 | 1 | 1.710.198.00 | Pinch roller arm right, complete |
| 09 | 1 | 1.710.120.09 | Link |
| 10 | 3 | 1.010.067.37 | Pressure spring |
| 11 | 1 | 1.116.711.02 | Record/reproduce head |
| 12 | 3 | 21.01.0206 | Screw M2 x 10 |
| 13 | 2 | 1.010.024.37 | Tension spring |
| 14 | 2 | 1.067.670.02 | Screw (special) |
| 15 | 2 | 22.99.0106 | Nut M3 |
| 16 | 1 | 1.710.195.00 | Pinch roller arm right, complete |
| 17 | 2 | 1.388.252.04 | Flat washer |
| 18 | 1 | 24.99.0122 | Shaft lock |
| 19 | 1 | 1.010.048.23 | Flat washer |
| 20 | 2 | 1.388.252.05 | Flat washer |
| 21 | 1 | 1.710.201.00 | Pinch roller, left side |
| 22 | 1 | 24.99.0113 | Shaft lock |
| 23 | 1 | 1.021.710.00 | Dual capstan support |
| 24 | 1 | 1.021.510.07 | Shaft lock |
| 25 | 1 | 1.021.521.00 | Rotor complete, right side |
| 26 | 2 | 21.14.0284 | Screw M2.5 x 16 |
| 27 | 2 | 24.16.1025 | Lock washer |
| 28 | 1 | 1.021.510.06 | Cover plate |
| 29 | 1 | 1.021.510.09 | Flange for low friction washer |
| 30 | 5 5 | and 1.062.210.08 1.062.210.09 | Head spacer |
| 31 | 1 | 31.99.0117 | O - ring |

CASSETTE TAPE TRANSPORT

| INDEX | QTY | ORDER NUMBER | | PART NAME |
|----------|-----|--------------|--|----------------------------|
| 32 | 2 | 1.021.516.00 | | Capstan motor driver |
| 33 | 1 | 1.021.510.05 | | Low friction washer |
| 34 | 1 | 1.021.510.12 | | Thrust bearing |
| 35 | 2 | 1.710.120.06 | | Bearing bush |
| 36 | 1 | 1.710.120.15 | | Spring bolt |
| 37 | 1 | 1.021.520.00 | | Rotor complete, right side |
| 38 | 2 | 1.710.120.07 | | Guide pin |
| 39 | 1 | 1.021.510.03 | | Capstan shaft, long |
| 40 | 1 | 22.015030 | | Nut M3 |
| 41 | 1 | 1.710.120.08 | | Centering pin |
| 42 | 1 | 1.021.510.01 | | Capstan shaft, short |
| 43 | 1 | 1.710.120.10 | | Centering screw |
| 44 | 1 | 22.01.8030 | | Nut M3 |
| 45 | 2 | 21.26.0353 | | Screw |
| 46 | 1 | 1.710.130.00 | | Locking solenoid, complete |
| to above | 1 | 1.014.820.08 | | Guiding cap |
| | 1 | 31.99.0122 | | Sealing ring |
| | 1 | 1.010.064.37 | | Spring |
| 47 | 1 | 1.021.510.08 | | Sealing washer |
| 48 | 2 | 72.02.0106 | | Spooling motor |
| 49 | 1 | 1.014.710.00 | | Pinch roller solenoid |
| 50 | 1 | 1.710.170.00 | | Plunger, complete |
| 51 | 2 | 21.53.0455 | | Screw M4 x 8 |
| 52 | 2 | 23.01.1043 | | Flat washer |
| 53 | 3 | 21.26.0455 | | Screw M4 x 8 |
| 54 | 2 | 21.26.0454 | | Screw M3 x 6 |
| 55 | 1 | 1.710.165.00 | | Dashpot complete |
| 56 | 1 | 24.16.3032 | | Retaining clip |
| 57 | 1 | 1.710.120.16 | | Threaded pin |
| 58 | 1 | 22.01.8030 | | Nut M3 |
| 59 | 2 | 21.01.2202 | | Screw M2 x 4 |
| 60 | 1 | 1.010.122.27 | | Threaded pin |
| 61 | 2 | 1.710.162.00 | | Coupling arm complete |
| 62 | 2 | 21.01.0203 | | Screw M2 x 5 |

CASSETTE TAPE TRANSPORT

9. TECHNISCHE DATEN
9. TECHNICAL SPECIFICATIONS
9. CARACTÉRISTIQUES TECHNIQUES

DEUTSCH

| | | |
|--|---|---|
| Laufwerk | 4-Motoren Laufwerk mit Doppel-Kapstan; 2 DC-Wickelmotoren über µP geregelt 2 einzeln gesteuerte, direkt angetriebene Kapstanmotoren | Übersprechdämpfung (bei 1 kHz) besser als 40 dB |
| 7-Segment-Anzeige | Bandzähler, 4-stellig auf Uhr-Funktion umschaltbar | Vormagnetisierungs- und Löschfrequenz 105 kHz |
| Bandgeschwindigkeit | 4,76 cm/s | Eingänge pro Kanal Empfindlichkeit für 0 dB Aussteuerung |
| Tonhöhenschwankungen (nach DIN 45507) IEC 386 | 0,1% für C60 und C90 | MIC 0,35 mV/ 10 kOhm (asymmetrisch) LINE 35 mV/220 kOhm |
| Verwendbare Kassetten | C46 bis C120 (die techn. Daten sind bis C90 garantiert) | Übersteuerungsfestigkeit aller Eingänge 40 dB (1:100) |
| Umpulzeiten | ca. 45s für C60 ca. 65s für C90 | Ausgänge pro Kanal Pegel für 0 dB Aussteuerung |
| Geräuschunterdrückungssysteme | Dolby® B/Dolby C umschaltbar (beide für Aufnahme und Wiedergabe getrennt). | LINE OUTPUT max. 0,775 V Ri = 390 Ohm, max. 1,5 kOhm mit Pegelsteller regelbar -26 dB |
| Bandsortenwahl | IEC I ▲ Fe ₂ O ₃ IEC II ▲ CrO ₂ IEC IV ▲ Metallpigment AUTO ▲ automatisch über Kassettencodierung | PHONES max. 2,45 V, optimal für Kopfhörer von 200 ... 600 Ohm. Kurzschlussfest, separat regelbar über Volume-Regler. |
| Wiedergabe-Entzerrung | 3180 + 120µs für IEC I 3180 + 70µs für IEC II + IV | Bestückung 1 Mikroprozessor 2 kx 8 bit, 55 IC's, 86 Transistoren, 57 Dioden, 10 LED's |
| Band-Aussteuerung | 200 nWb/m für 0 dB-Anzeige am PEAK READING METER | 3 Gleichrichter, 2 Relais, 4 Sieben-Segment-Anzeigen, 2 24-Segment Bar-Graph, 2 Quarze |
| Klirrfaktor bei 315 Hz; 0 dB/K3 | IEC I : besser als 0,8% IEC II : besser als 1,5% IEC IV : besser als 1,5% | Stromversorgung 100/120/140/200/220/240 V AC umschaltbar ±10%, 50 ... 60 Hz, max. 50 W |
| Frequenzgang (über Band bei -20 dB gemessen) | IEC I : 30 Hz ... 18 kHz +2/-3 dB IEC II : 30 Hz ... 20 kHz +2/-3 dB IEC IV : 30 Hz ... 20 kHz +2/-3 dB | Netzsicherung 100 ... 140 V: T 500 mA 200 ... 240 V: T 250 mA |
| Geräuschspannungsabstand bezogen auf 3 % Klirrfaktor bewertet nach IEC/A (DOLBY C ein) | besser als 72 dB | Gewicht (Masse): 10,4 kg |
| | | Gehäuseabmessungen (B x H x T): 452 x 151 x 352 (mm) |
| | | Dolby®: Die Bezeichnung <Dolby> und das Symbol des doppelten <D> sind Markenzeichen der Dolby Laboratories. Geräuschunterdrückungssystem unter Lizenz der Dolby Laboratories hergestellt. Messwerte über Band, gemessen mit REVOX-Kassetten. Änderungen vorbehalten |

ENGLISH

| | | |
|--|---|---|
| Transport mechanism | 4-motor dual capstan drive for compact cassettes 2 DC-spooling motors controlled by microprocessor 2 capstan shafts individually driven by quartz controlled MDD motors | Separation (at 1 kHz) better than 40 dB |
| 7-segment display | 4 digit tape counter switchable to time clock | Bias and erase frequency: 105 kHz |
| Tape speed | 4,76 cm/s (17/8 ips) | Inputs per channel Sensitivity for 0 dB |
| Wow and flutter (as per DIN 45507) IEC 386 | 0,1% with C 60 and C 90 cassettes | MIC 0,35 mV/ 10 kohms (unbalanced) LINE 35 mV/220 kohms |
| Useable cassettes | C 46 to C 120 specified data guaranteed up to C 90 only | Overload margin on all inputs 40 dB (1:100) |
| Winding times | approx. 45 sec. for C 60 approx. 65 sec. for C 90 | Outputs per channel Level at 0 dB reading |
| Noise reduction systems and | Dolby®-B/Dolby C processors in the recording reproducing channels, switchable MPX-filter | LINE OUTPUT: max. 0,775 V Ri 390 ohms, max. 1,5 kohms adjustable to -26 dB |
| Tape selection | IEC I ▲ Fe ₂ O ₃ IEC II ▲ CrO ₂ IEC IV ▲ Metal AUTO ▲ automatic sensing of coded cassettes | PHONES: max. 2,45 V optimal headphone impedance 200 ... 600 ohms, short-circuit-proof, volume separately adjustable |
| Playback equalization | 3180 + 120 µs, IEC I 3180 + 70 µs, IEC II + IV | Component parts 1 microprocessor 2 kx 8 bit, 55 IC, 86 transistors, 57 diodes, 10 LED, 3 fullwave rectifiers, 2 relays, 4 seven-segment display 2 24-segment bar graphs, 2 quartz |
| Recording level | 200 nWb/m equals 0 dB on peak level meters | Voltage selector 100/120/140/200/220/240 V AC (voltage selector) ±10%, 50 ... 60 Hz, max. 50 W |
| Distortion at 315 Hz, 0 dB (K3) | IEC I : better than 0,8% IEC II : better than 1,5% IEC IV : better than 1,5% | Fuse 100 ... 140 V: 500 mA 200 ... 240 V: 250 mA |
| Frequency response (measured via tape at - 20 dB) | IEC I : 30 Hz ... 18 kHz +2/-3 dB IEC II : 30 Hz ... 20 kHz +2/-3 dB IEC IV : 30 Hz ... 20 kHz +2/-3 dB | Weight 22 lbs 15 ozs (10,4 kg) |
| Signal to noise ratio referred to 3 % distortion weighted as per IEC/A (Dolby C on): | better than 72 dB | Dimensions (W x H x D) 452 x 151 x 352 mm (17.8 x 6 x 13.85 inches) |
| | | Dolby®: the name Dolby and the double-D symbol are registered trademarks of Dolby Laboratories. Noise reduction system manufactured under license from Dolby Laboratories. |
| | | {(Overall) performance data as measured with REVOX-cassettes Subject to change. |

FRANCAIS

| | | |
|---|--|--|
| Entraînement | entraînement des cassettes compactes par 4 moteurs et double cabestan 2 moteurs DC de bobinage contrôlés par µP 2 cabestans à entraînement direct pilotés par quartz | Amortissement de la diaphonie (à 1 kHz) meilleur que 40 dB |
| Affichage à 7 segments | compteur à 4 chiffres commutable en fonction horloge | Fréquence de prémagntisation et d'effacement 105 kHz |
| Vitesse de défilement | 4,76 cm/s | Entrées par canal sensibilité pour 0 dB MIC 0,35 mV/ 10 kohms (asymétrique) LINE 35 mV/220 kohms |
| Pleurage (selon DIN 45507) IEC 386 | 0,1% pour C60 et C90 | Taux de surcharge de toutes les entrées 40 dB (1:100) |
| Cassettes utilisables | C 46 jusqu'à C 120 les caractéristiques techniques sont garanties jusqu'à C 90 | Sorties par canal niveau pour 0 dB LINE OUTPUT max. 0,775 V, Ri 390 ohms, max. 1,5 kohms avec atténuateur réglable jusqu'à -26 dB PHONES max. 2,45 V, sans risque en cas de court-circuit, pour casques de 200 ... 600 ohms, niveau réglable par potentiomètre de volume séparé |
| Temps de rebobinage | 45 s environ pour une C 60 65 s environ pour une C 90 | Composants 1 microprocesseur 2 k x 8 bit, 55 IC's, 86 transistors, 57 diodes, 10 LED's, 3 redresseurs, 2 relais et 4 indicateurs à sept segments 2 bar graphs à 24-segments, 2 quartz |
| Systèmes de réduction des bruits | DOLBY® B et DOLBY C (enregistrement et lecture séparés), filtre MPX commutable | Alimentation 100 ... 140/200 ... 240V AC (commutable) ±10%, 50 ... 60 Hz, max. 50W |
| Choix du type de bande | IEC I ▲ Fe ₂ O ₃ IEC II ▲ CrO ₂ IEC IV ▲ Metal AUTO ▲ automatique par le code de la cassette | Fusible secteur 100 ... 140V : T 500 mA 200 ... 240V : T 250 mA |
| Correction de lecture | 3180 + 120µs pour IEC I 3180 + 70µs pour IEC II + IV | Dimensions de l'appareil 452 x 151 x 352 mm (L x H x P) |
| Niveau de modulation | 200 nWb/m pour 0 dB au PEAK READING METER (crête-mètre) | Poids 10,4 kg |
| Taux de distortion 315 Hz; 0 dB (K3) | IEC I : meilleur que 0,8 % IEC II : meilleur que 1,5 % IEC IV : meilleur que 1,5 % | Dolby®. Circuit de réduction des bruits fabriqué sous licence des Dolby Laboratories. Le mot «Dolby» et le symbol Double «D» sont les marques de fabrique des Dolby Laboratories |
| Réponse en fréquence (enregistrement-lecture, mesurée à -20 dB) | IEC I : 30 Hz ... 18 kHz +2/-3 dB IEC II : 30 Hz ... 20 kHz +2/-3 dB IEC IV : 30 Hz ... 20 kHz +2/-3 dB | Valeurs de mesure (après bande) avec des cassettes REVOX. Sous réserve de modifications |
| Rapport signal/bruit (se rapportant à 0 dB) pondéré d'après IEC/A (DOLBY C enclenché) | meilleur que 72 dB | |